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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

JANUARY, 1970

VOLUME 67, NUMBER 1

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**112th MSMA Annual Session
April 2-5, 1970, Kansas City**

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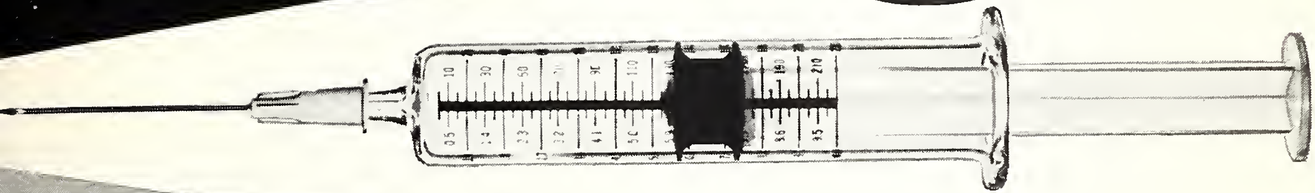

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Preliminary Program
112th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

Muehlebach Hotel, Kansas City **April 2-5, 1970**

Thursday, April 2

11:00 AM Registration of Delegates.
1:30 PM House of Delegates Meeting, opening session.
4:30 PM Reference Committee Meetings.

Friday, April 3

8:00 AM Registration.

9:00 AM *Potentials and Problems of Comprehensive Health Planning and Care.* (Panel Participants and Moderator to be announced.)

9:00 AM Panel on *Rheumatoid Arthritis.* (Sponsored by the St. Louis Rheumatism Society.)
  Panel Participants:
    Medical Aspects of Surgery in Arthritis, David H. Neustadt, M.D., Louisville, Ky
    Pre and Post Operative Exercises for Arthritic Patients, Norman A. Rose, M.D., St. Louis.
    Surgery in Rheumatoid Arthritis, D. Elliott O'Reilly, M.D., St. Louis.

10:30 AM Intermission to view exhibits.

11:00 AM Program sponsored by the MSMA Committee on Disaster Medical Care and National Defense.
Moderator: John T. Crowe, M.D., Cape Girardeau.
  Panel Participants:
    Emergency Physician, Raymond R. Hannas, Jr., M.D., Kansas City.
    (Second Participant to be selected.)

11:00 AM *Endotoxic Shock,* Keith P. Russell, M.D., Los Angeles, Calif. (Sponsored by MSMA Committee on Maternal Welfare.)

11:00 AM *Emotional Problems of Adolescents* (Sponsored by the Missouri Academy of Psychiatry).
Moderator: Edmund V. Cowdry, Jr., M.D., St. Louis, President, Missouri Academy of Psychiatry.
  1. *Putting Youth Into Today's Context,* Fernando Tapia, M.D., Columbia.
  2. *Guilt and Homework,* George J. Lytton, M.D., Kansas City.
  3. *Dropouts, Delinquents, Drugs, Depression (The Drama of the Abandonment Syndrome in Adolescents),* James F. Masterson, Jr., M.D., New York.

12:00 NOON Committee on Maternal Welfare Luncheon
General Luncheon: Guest Speaker, Ewing M. Kauffman, President, Kansas City Royals Baseball Club.
University of Missouri Alumni Luncheon.

2:00 PM *Comprehensive Care of the Indigent.*
Moderator: Hector W. Benoit, Jr., M.D., Kansas City.
  Panel Participants:
    Max P. Pepper, M.D., St. Louis.
    James M. Whittico, M.D., St. Louis.
    Third Participant to be selected.

2:00 PM *The General Practitioner in Industrial Medicine.* (Sponsored by MSMA Committee on Industrial Health.)
Moderator: Richard A. Sutter, M.D., St. Louis
  Panel Participants:
    I. *His Role: Part Time Medical Services to Industry,* Henry F. Howe, M.D., Chicago, Ill.
    II. *Disability Evaluation: Disability Rating in Workmen's Compensation Cases,* Mr. James I. Kaut, Kansas City.
  Discussants:
    William L. Macon, Jr., M.D., St. Louis.
    Paul J. Centner, M.D., Kansas City.

- 2:00 PM Program sponsored by Missouri State Surgical Society.
  - Moderator: Howard E. Linville, M.D., Kansas City.
    - Panel Participants:
      1. *Patterns of Coronary Arterial Disease and the Surgical Significance,* Michael E. De Bakey, M.D., Houston, Texas.
      2. *Radiological Diagnosis of Biliary Tract Disease,* Vallee L. Willman, M.D., St. Louis.
- 3:30 PM Intermission to view exhibits.
- 4:00 PM House of Delegates, second session.
- 5:30 PM Missouri State Medical Foundation Annual Meeting.
- 6:00 PM Reference Committees.

Saturday, April 4

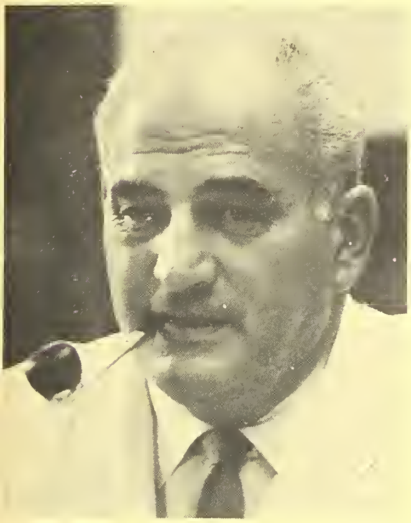
- 8:00 AM Registration.
- 9:00 AM *Changes in Medical Education.* (Sponsored by MSMA Committee on Medical Education and Hospitals.)
  - Moderator: Ralph R. Hall, M.D., Kansas City.
    - (Panel Participants to be announced.)
- 9:00 AM *Mechanical Assistance for the Failing Heart.* (Sponsored by the Missouri Heart Association.)
  - Moderator: Albert M. Estes, M.D., Cape Girardeau.
    - Panel Participants:
      - *Intraaortic Phase-Shift Balloon Pumping in Cardiogenic Shock,* Adrian Kantrowitz, M.D., Brooklyn, N. Y.
      - *The Nature of Heart Failure,* Edmund H. Sonnenblick, M.D., Boston, Mass.
- 9:00 AM Program sponsored by Missouri Chapter, American Cancer Society.
  - Moderator: G. Neil Berry, M.D., Kansas City.
    - Panel Participants:
      - *Role of Transplantation in Oncology,* Joseph G. Fortner, M.D., New York, N. Y.
    - Discussants to be announced.
- 10:30 AM Intermission to view exhibits.
- 11:00 AM *Many Faces of Depression.* (Panel Participants and Moderator to be announced.)
- 11:00 AM *Resuscitation and Transportation of the Injured.* (Sponsored by the Missouri Chapter of the American College of Surgeons.)
  - Moderator: John A. Collins, M.D., St. Louis.
    - Panel Participants:
      - F. D. Farrington, M.D., Minocqua, Wisc.
      - Marshall B. Conrad, M.D., St. Louis.
      - Frank L. Mitchell, M.D., Columbia.
- 11:00 AM *Symposium on Chronic Renal Disease.*
  - *Experience with Chronic Home Hemodialysis in the Indigent,* Francisco Gonzales, M.D., New Orleans, La.
  - (Additional Participants to be announced.)
- 12:30 PM Fifty-Year Club Luncheon.
  - General Luncheon: Guest Speaker, Honorable William S. Morris, Lieutenant Governor, State of Missouri.
- 2:30 PM *Liberalization of Missouri Abortion Law.* (Sponsored by the Missouri Obstetrical and Gynecological Society and the MSMA Committee on Medicine and Religion.)
  - Moderator: George J. L. Wulff, Jr., M.D., St. Louis.
    - (Participants to be announced.)
- 2:30 PM *Panel on Iatrogenic Diseases.*
  - Panel Participants:
    - David M. Spain, M.D., Brooklyn, N. Y.
    - Fred V. Lucas, M.D., Columbia.
    - David Ginder, M.D., Columbia.
- 4:00 PM Intermission to view exhibits.
- 6:30 PM Social Hour for those attending the Banquet.
- 7:15 PM Annual Banquet in Honor of Past Presidents of MSMA.
  - Guest Speaker, The Hon. Calvin Dean Johnson, Consultant on Public Affairs, American Trucking Associations, Inc., Washington, D. C.

Sunday, April 5

- 7:30 AM House of Delegates Meeting, breakfast and final session.

Name More Annual Session Participants

Dr. Sonnenblick



Dr. Kantrowitz

The Missouri Heart Association will again sponsor a program during the 112th Annual Session of the Missouri State Medical Association April 2-5, 1970 at the Muehlebach Hotel in Kansas City. Last March the Heart Association sponsored a program at the 111th Annual session featuring Drs. Denton A. Cooley and DeWitt Leachman of Houston, Texas.

The Heart Association-sponsored program at the 112th Annual Session will start at 9 a.m. on Saturday, April 4, 1970, and features two specialists in the cardiovascular field, Drs. Edmund H. Sonnenblick and Adrian Kantrowitz.

The program is entitled: "Mechanical Aids for the Failing Heart" and will feature as moderator Dr. Albert M. Estes of Cape Girardeau, chairman of the Heart Association's Professional Education Committee.

Many Outstanding Programs

The Saturday morning session sponsored by the Missouri Heart Association is just one of a number of outstanding scientific programs scheduled for the 112th Annual Session of MSMA.

Dr. Richard Yore and the members of his Scientific and Postgraduate Education Committee have held two meetings in recent months working on plans for the meeting at Kansas City and much behind-the-scenes work has also been underway in an effort to make the program a major success.

The 112th Annual session opens officially with a meeting of the House of Delegates on Thursday afternoon, April 2. A second meeting of the House is scheduled for Friday afternoon. And the House will hold a third session on Sunday morning to conclude its business.

Two general luncheons are scheduled during the meeting with Ewing M. Kauffman, President of the Kansas City Royals baseball team to speak on Friday; and Missouri Lieutenant Governor William Morris to speak on Saturday. Incidentally, Lt. Gov. Morris is president of the Kansas City Blues Hockey team.

Dr. Sonnenblick

Dr. Sonnenblick is a native of Connecticut and a graduate cum laude of Harvard Medical School at Boston. From 1963-7 Dr. Sonnenblick served as Senior Investigator, Cardiology Branch, National Heart Institute, National Institute of Health, Bethesda, Md. During the same period he was Attending Physician for the National Heart Institute and Consultant Cardiologist to the Surgery Branch, National Heart Institute.

In 1966-7 he served as Associate Professorial Lecturer at the Department of Physiology at George Washington University in Washington, D.C. In 1967 he was Assistant Professor of Medicine at Harvard Medical School. Also in 1967 he was co-director of Cardiovascular Unit at Peter Bent Brigham Hospital. In 1969 he assumed the position of Director of Research Cardiovascular Division at Peter Bent Brigham Hospital.

Dr. Kantrowitz

Dr. Kantrowitz is a native of New York City. He is a graduate of the Long Island College of Medicine. His teaching appointments include State University of New York Downstate Medical Center where he served as Professor of Surgery; New York Medical College where he was Instructor in Surgery and Western Reserve University where he was a Teaching Fellow in Physiology.

His research appointments include Montefiore Hospital where he was a Cardiovascular Research Fellow; Western Reserve where he was U.S.P.H.S. Fellow in Cardiovascular Physiology; and Maimonides Hospital where he was Director of Surgical Research and Chairman of the Research Committee.

Among his awards is the City of Hope National Medical Center Award from which he received the Medical World News award for contribution to the advancement of heart surgery.

COMPLETE PROGRAM STARTS ON PAGE 8

A complete preliminary program for the 112th Annual Session of the Missouri State Medical Association, April 2-5, 1970, starts on Page 8 of this edition of MISSOURI MEDICINE.

MSMA
News

Officer's Conference Opens January 31st

Plans have been completed for the Third Annual County Society Officer's Conference of the Missouri State Medical Association scheduled for Saturday afternoon, January 31, 1970 and Sunday morning, February 1 at the Ramada Inn in Jefferson City.

All members of the Association are invited to attend. Advance registration is requested. Those desiring to register may use the blank printed at the bottom of this page or write the Association office for a copy of the program and registration blank.

The program kicks off at 1:45 p.m. on Saturday with a short message from Dr. Walter T. Gunn, chairman of the sponsoring Public Service Committee. Others on the Saturday afternoon program include Joe Miller, Director of the AMA's Public Affairs Division; Dr. Robert W. Kelley, a member of the Governor's Advisory Council on Comprehensive Health Planning; Dr. John I. Matthews, chairman of MSMA's Legislative Matters Committee; State Senator Albert Spradling, Jr., of Cape Girardeau and State Representative William Phelps of Kansas City.

The banquet speaker on Saturday night will be United States Senator Thomas F. Eagleton.

The Sunday morning program gets underway at 8:30. Speakers include Dr. Arthur Neilson, a Missouri delegate to the AMA; Association President Dr. Doyle C. McCraw; Dr. Charles W. Chastain, secretary of the Mineral Area Medical Society; Association President-elect Dr. Joseph Fisher; and Association Executive Secretary Raymond McIntyre.

Sunday morning's program will also include a group discussion period during which participants will be able to talk about topics of concern to medicine.

Wives will be welcomed at all sessions but are especially invited to attend the Saturday night events and the Sunday luncheon.

Tickets for the banquet and the Sunday luncheon will be on sale at the registration desk.

U. S. Senate Rejects Plan To Tighten Professional Corporation Regulations

The United States Senate on December 9th voted to kill a Senate Finance Committee Amendment to the 1969 tax bill which would have limited pension plan contribution deductions for employes of professional corporations.

Under the proposed amendment a professional corporation would have been allowed to deduct up to 10 per cent of each employe's earned income or $2,500, whichever is less, as a contribution to a pension plan.

The amendment, which was approved by the finance committee without a hearing, drew opposition from physicians, lawyers, engineers and others who have formed professional corporations.

The American Medical Association, meeting in Denver this month, passed a resolution opposing the amendment.

The Missouri State Medical Association was also active in opposition to the Amendment.

* * *

In other news concerning professional corporations, the Wall Street Journal reports that such corporations must be corporate in fact as well as form.

The article cited a Tax Court ruling in a case involving four radiologists who set up a corporation under Wisconsin law. The men had separate practices in their own names before they incorporated, and their practices were largely unaffected thereafter — except that all their fees and expenses were paid into or from the corporation's checking accounts. Each doctor was credited with what he earned and docked for what he spent.

The Tax Court said the income could not be taxed to the corporation because it did nothing to earn it. It sold no services, owned no equipment, and exerted no real control over its "employes". "A mere set of bookkeeping entries and bank accounts," the court said.

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President Dorman Challenges Physicians at AMA Convention to Become 'Patient-Oriented'

The American Medical Association must become "patient-oriented" and prove that we are patient-oriented to the public, AMA President Gerald Dorman of New York told members of the House of Delgates at the opening session of the AMA 23rd Clinical Convention in Denver on Sunday, November 30.

Dr. Dorman challenged AMA members to establish or see to the establishment of a workable system of patient care for all the people of the nation and to strengthen the AMA so it is relevant to all physicians.

He said that the AMA needs to attract physicians who are educators, researchers, administrators and in federal service as well as all physicians in private practice. He also urged a program to attract future physicians to the AMA.

The Missouri State Medical Association was well represented officially at the Denver meeting with all delegates and alternates present. Delegates include Drs. Arthur W. Neilson, St. Louis; J. Loren Washburn, Versailles; Stanley S. Peterson, Springfield and Hector W. Benoit, Jr., Kansas City. Alternates include Drs. Robert W. Kelley, St. Louis; Hugh E. Stephenson, Jr., Columbia; James C. Sisk, St. Louis County and Rae W. Froelich, Lebanon.

Also in attendance was MSMA President Doyle C. McCraw, Bolivar; President-elect Joseph L. Fisher, St. Joseph; Immediate Past-President David N. Kerr, St. Louis and Council Chairman Gerald L. Miller, Kansas City.

Dr. Wendell G. Scott of St. Louis again served as the delegate from the AMA's Section on Radiology.

Dr. Neilson served as Chief Teller for the House of Delegates and Dr. Peterson was a member of Reference Committee G.

The MSMA delegation introduced one resolution, No. 42, concerning Social Security Regulations Relative to Part B Payments of Medicare in Teaching Institutions. The Resolution was heard by Reference Committee B which suggested the following substitute *Resolve:*

> *Resolved,* That the Board of Trustees and the Social Security Administration immediately take measures to effect clarification of the regulations spelled out in SSA Letter #372 to Part B Intermediaries to the end that Medicare payments for bona fide medical services rendered by or under the supervision of physicians in teaching institutions will be resumed.

Both the resolution and the substitute *Resolve* were referred to the AMA Board of Trustees by the House of Delegates.

On Saturday, before the opening of the AMA meeting, a number of those in attendance from Missouri, attended an all-day session on Peer Review.

During the meeting, organized medicine was warned that effective peer review mechanism may be the last bulwark against encroachment of its obligation to set standards for medical practice and quality of care.

The program featured a number of speakers who have been involved in peer review programs along with two panels—one which included members of a hospital utilization and review committee, the other included members of a county medical society's peer review committee.

The following are among the more important actions of the House of Delegates taken in session on Sunday afternoon, all-day Tuesday and Wednesday morning.

The House voted down a resolution urging revision of state laws so abortion would be available on demand. Instead, the House voted to reaffirm the present AMA policy statement on therapeutic abortion.

The House referred to the Board of Trustees a recommendation that the Berry Plan for physicians to serve in the military service be changed to allow physicians to serve in areas where physicians are in short supply.

The House voted to establish a committee on private practice of nine members to encourage and promote the private practice of medicine and to develop new methods to promote the private practice of medicine throughout medical schools, graduate and postgraduate training.

The House adopted a report of the Committee on Health Care for the Poor which calls for (1) increased financial support of health programs for the poor, (2) provisions of methods to attract and retain physicians and allied health professionals in areas of need, (3) development of educational materials relevant to the cultural backgrounds of the poor and minority groups, (4) assurance of adequate nutrition, (5) elimination of quackery and (6) increased participation of minority group physicians in AMA activities.

The House urged the Council on Medical Education and specialty boards to move forward with the acceptance of qualified osteopathic physicians into specialty training programs and specialty board examinations.

The House called marihuana a dangerous drug, pointing out that sale and possession should not be legalized. Additional research was encouraged and it was recommended that offenders should be handled on individual basis, including treatment and rehabilitation.

The House voted to discontinue as soon as possible the AMA's Institute for Biomedical Research because "it is impractical for AMA to continue to meet increasing financial burden for its support."

The House voiced concern about the fragmentation of medicine through rapidly increasing number of Washington offices established by specialty societies and urged AMA to seek to coordinate efforts of all segments of the profession in their relation with federal government.

The House adopted a resolution strongly opposing as discriminatory a Senate Finance Committee amendment which militates against professional corporations.

The House approved the idea of the AMA using its influence to produce legislation which would provide educational monies for new medical schools and to assist present medical schools.

In the malpractice field, the House called for state and county medical societies to explore with counterpart hospital associations the development of workshops designed to prevent medical accidents in hospitals, called attention to a recommendation of a Board of Trustees report concerning sponsorship of professional liability insurance programs by medical societies on a state or regional basis and voted to request that the Board of Trustees continue the urgent priority in the search for the solutions to the crisis of professional liability and liability insurance. The House also voted to ask each State Association to supply to the AMA Headquarters copies of proposed legislation, proposed programs and other pertinent data so that such information can be disseminated.

The House also approved a resolution calling for the promotion of environmental health.

Considerable discussion during the AMA meeting centered on a report of a Committee on Long Range Planning and Development which is commonly referred to as the Himler report, named after the committee's chairman, as well as a minority report on the same subject by Dr. John Budd.

The House voted to establish a permanent Committee on Long Range Planning and Development but, in the interim, to establish an Ad Hoc Committee on Long Range Planning and Development to include one member of the Board of Trustees, five members of the House, two AMA members at large and a member of SAMA. This Ad Hoc Committee is to receive both the Himler Report and the Minority Report as well as all other reviews and correspondence on the subject and is to study and make recommendations concerning the structure of and the charge to the permanent Long Range Planning Committee. These recommendations are to be reported to the House next June.

The House also voted to transmit both the Himler report and the minority report to component state medical societies for study and possible resolutions and recommendations to be made next June.

The House took a number of actions regarding federal medical programs. It reaffirmed its position of offering assistance to federal agencies "in their quest for physicians who are errant in their participation" in Medicare and Medicaid and will seek legislation to prohibit indiscriminate release of names of M.D.s who have received payments under these programs.

The House opposed a program of federal licensure, pointing out that it would complicate delivery of health services and lead to further maldistribution of physicians. It reaffirmed its support of the concept of Regional Medical Programs and urged AMA members to participate in giving guidance. It directed that the Social Security Administration be informed of AMA's "firm opposition" to on-site auditing in physicians' offices of tax-supported programs by representatives of governmental agencies and its position that auditing procedures, where required by tax-supported plans, be developed as a peer review program.

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Complications of Chronic Mastoiditis

Special Article

Contrary to popular medical belief, infection of the mastoid air cells is still a common problem. Although the widespread use of antibiotics has reduced the complications of acute otitis media, including acute mastoiditis, to a clinical rarity, chronic infection in the mastoid is still frequently seen. This is because the pathogenesis of chronic mastoiditis is usually due to cholesteatoma (a sac of keratinizing squamous epithelium, which invades the mastoid) or to the formation of thick granulation tissue within the mastoid. These conditions do not respond to antibiotic therapy, thus the great majority of patients with chronic suppurative ear disease require mastoidectomy to eradicate the infection.

The relatively recent use of the operating microscope for mastoid surgery has allowed technics to be developed in which reconstruction of the ossicular chain and tympanic membrane (tympanoplasty) can be combined with removal of the infected tissue. This assures a dry ear as well as hearing improvement in a significant number of patients. Antibiotics, of course, are an effective adjunct to otologic surgical therapy.

The authors present four case reports in this clear and concise discussion of the pathogenesis, signs and symptoms and complications of chronic mastoiditis. Dr. Miglets is an Assistant Professor of Otolaryngology, The Ohio State College of Medicine, and a member of the Attending Staff, The Ohio State University Hospital and Children's Hospital. Dr. Harrington, formerly Chief Resident in Otolaryngology, The Ohio State University Hospital, is currently serving with the United States Air Force at Carswell Air Force Base, Texas. This article was offered for publication in the other 33 journals of the State Journal Group by Dr. Perry R. Ayers, Editor of *The Ohio State Medical Journal.*

The relative frequency of chronic mastoid infection is illustrated by the fact that during a three year period (July, 1965 to July, 1968), 367 mastoidectomies were performed at The Ohio State University Hospital and Children's Hospital in Columbus. Practically all of these were done for chronic mastoiditis. The purpose of this paper is to review these 367 patients as to the pathogenesis of their mastoiditis and to discuss the otogenic complications that occurred. The signs and symptoms of chronic mastoiditis will be discussed along with several warning signs that may occur before actual complications develop. A short case summary illustrating each type of intracranial complication will be presented.

Complications: The Pathogenesis

The potentially dangerous nature of chronic suppurative ear disease is illustrated by the fact that ten of the 367 patients with chronic mastoiditis, at the time of their admission, already had extension of infection from the mastoid air cells into the cranial cavity or labyrinth. Although cholesteatoma was the etiologic agent in only slightly over half (190) of the involved ears, it was present in all of the patients with complications. All of the patients but one with intracranial complications were under the age of 30 years. *Proteus* species was the most common microorganism cultured from the ears of patients with intracranial complications (Table 1).

Because of its great tendency to erode the surrounding bone, it is not surprising that cholesteatoma was frequently associated with the spread of infection to the cranial cavity. Other studies,[1] however, have shown that the chronic mastoid infection associated with granulation tissue also may destroy bone, and, although not as frequently as cholesteatoma, still may produce intracranial complications. The relatively

TABLE 1

COMPLICATIONS AND BACTERIAL FINDINGS (CHRONIC MASTOIDITIS WITH CHOLESTEATOMA)

Patient	*Age*	*Complications*	*Organism*
1.	8	Otitic hydrocephalus epidural abscess	*Proteus* species
2.	16	Meningitis, thrombosis sigmoid sinus, cerebellar abscess	*Proteus* species
3.	50	Labyrinthitis	No growth
4.	*27	Meningitis, epidural abscess, cerebellar abscess	*Proteus m.*
5.	8	Meningitis, temporal lobe abscess	*Proteus* species
6.	18	Epidural abscess	*Klebsiella p.*
7.	18	Meningitis, temporal lobe abscess	*Bacteroides*
8.	24	Meningitis, epidural abscess temporal lobe abscess	*Proteus m.*
9.	27	Subperiosteal abscess	Gram neg. rod (no spec. organism)
10.	75	Labyrinthitis, petrositis meningitis	*Achromobacter*

* Mortality.

young age group in which these complications occurred agrees with the studies by Proctor[2] and Pennybaker,[3] who found the highest incidence of otogenic intracranial complications among the ten to 20 year olds, although no age group was exempt.

Important structures such as the dura of the posterior and middle cranial fossa, the sigmoid venous sinus of the brain, facial nerve and inner ear are separated in some areas by only millimeters of bone from chronic infection in the mastoid air cells. When this bony barrier breaks down, intracranial complications such as meningitis, epidural abscess, brain abscess, septic thrombosis of the sigmoid sinus or otitic hydrocephalus may occur. Other serious complications develop when infection in the mastoid spreads to vital structures within the temporal bone. These complications include facial nerve paralysis, petrositis and labyrinthitis (Fig. 1). Hematogenous spread of infection to the brain also occurs but is less frequent than direct extension.

Multiple complications are not uncommon (Table 2). The ten patients in this series had a total of 20 complications, most of them intracranial. Although the mortality rate was low (one patient died with an epidural abscess, cerebellar abscess and meningitis), the morbidity was high. Long convalescence was the rule, with residual neurologic defects in four patients.

Signs and Symptoms

Physicians and patients alike may be lulled into a false sense of security by the insidious nature of chronic mastoiditis. A long history of chronic drainage from the ear associated with a hearing loss usually are the only symptoms. Physical examination will show a defect in the tympanic membrane, which may vary considerably in size and location. The perforation most frequently seen in patients who have a cholesteatoma is in the posterior superior quadrant extending to the margin or edge of the drumhead. Through this marginal perforation, squamous epithelium of the ear canal grows into the mastoid and middle ear to form a cholesteatoma. The size of the defect in this area does not necessarily reflect the amount of middle ear and mastoid disease present behind it. Small perforations here may be associated with a large cholesteatoma invading the mastoid. Small perforations, if not actively draining, may be covered

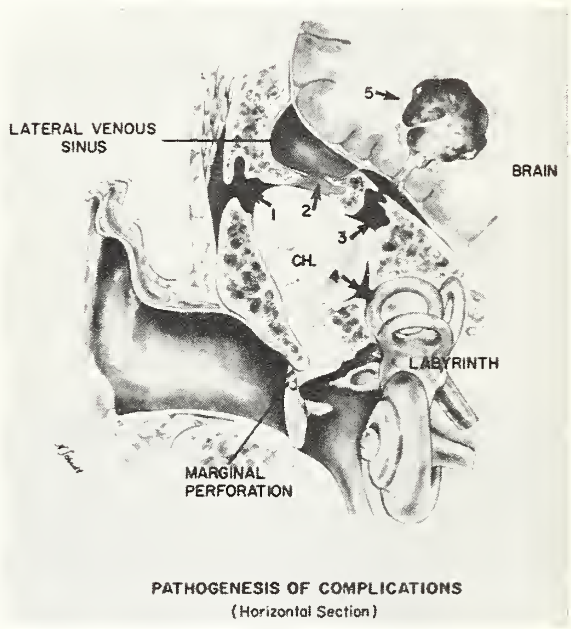

Fig. 1 Cholesteatoma (CH) may erode the bony walls of the mastoid in several locations, producing various complications. 1. Subperiosteal abscess, 2. Perisinus abscess which may lead to septic thrombosis of the lateral venous sinus, and jugular vein, 3. Epidural abscess which may break through the dura producing subdural abscess or meningitis, 4. Labyrinthitis results when the horizontal semicircular canal is eroded, 5. Brain abscess may occur in the cerebellum when the posterior wall breaks down or in the temporal lobe when the infection extends through the roof of the mastoid.

TABLE 2

COMPLICATIONS IN PATIENTS WITH CHRONIC MASTOIDITIS

Patients requiring mastoidectomy (July 1965-1968)		367	
For cholesteatoma	190		
For granulation mastoiditis	177		
Patients with complications (all with cholesteatoma)		10	(3.7%)
Total Complications		20	
Meningitis		6	
Epidural abscess		4	
Temporal lobe abscess		2	
Cerebellar abscess		2	
Otitic hydrocephalus		1	
Lateral sinus thrombosis		1	
Subperiosteal abscess		1	
Labyrinthitis		2	
Petrositis		1	
Deaths		1	

with a crust and are easily overlooked unless the drumhead is meticulously cleansed and its entire circumference inspected. Although large central perforations are usually associated with the granulation tissue type of chronic mastoiditis or with malfunction of the eustachian tube, cholesteatoma may occasionally be seen with this type.[1] The middle ear mucosa frequently can be observed through large perforations and may be thickened, red or replaced by granulation tissue. When a cholesteatoma is present, its white matrix often can be seen after the epithelial debris is suctioned from the ear. The tenderness to palpation over the mastoid, common in acute mastoiditis, is not present in uncomplicated chronic mastoiditis.

The discharge from chronic mastoiditis may be of two types. When associated with eustachian tube dysfunction (usually seen with central or anterior tympanic membrane perforations), it is largely mucoid in nature. Drainage through this type of perforation may be intermittent, frequently increasing when the patient develops an upper respiratory infection or gets water into his ear. The second type of drainage is seen in patients with cholesteatoma. It is thick, scanty and extremely foul. The bacterial flora present in chronic mastoiditis will show a shift toward the gram negative spectrum (as opposed to the predominantly gram positive organisms seen in acute infections). *Proteus*, *Pseudomonas* and *Escherichia Coli* are commonly cultured from chronic draining ears.[4]

The majority of patients with chronic mastoiditis manifest some degree of a conductive, or middle ear, type hearing loss. This may be due to fixation of the ossicular chain by granulation tissue, edematous mucosa or a hyaline-like deposit called tympano-sclerosis. Erosion of the ossicles by the disease may also occur. The most common defect is destruction of the joint between the incus and stapes, although loss of the entire ossicular chain is not rare.

Warning Signs

Chronic infection of the mastoid may be present for many years before complications develop. These may be heralded with several warning signs, or may present suddenly with the picture of a full-blown intracranial infection. Warning signs include vertigo, pain in the ear and facial weakness.

Vertigo

Patients with chronic aural discharge who complain of vertigo should be suspected of having a fistula into the inner ear or labyrinth. The bony covering of the horizontal semicircular canal projects into the mastoid antrum just at the spot where cholesteatoma forms most abundantly. When the cholesteatoma becomes adherent to a semicircular canal, the bone of the canal is slowly eroded. The mechanism of bone destruction by cholesteatoma is not fully understood but may be due to a pressure phenomenon or to enzymatic activity of the fibroblasts within the cholesteatoma matrix.[5, 6] When this bone is destroyed and the endosteum of the inner ear exposed, a condition known as perilabyrinthitis ensues. Next, serous labyrinthitis or inflammation of the inner ear develops which may cause the patient to complain of vertigo. The patient then may exhibit spontaneous nystagmus, a neurosensory-type hearing loss and decrease in the caloric response. If the infected cholesteatoma is not surgically removed immediately, a bacterial labyrinthitis ensues with the sequelae of total deafness. Intracranial extension from the labyrinth also may occur through several preformed pathways (vestibular and cochlear aqueducts and along the course of the cochlear and vestibular nerves).

The most important method of evaluating patients with chronic suppurative ear disease that develop vertigo is the “fistula test.” This consists of sealing off the external ear canal with a Siegle otoscope and using the bulb attachment to change the pressure within the ear canal. In patients with a labyrinthine fistula, the fluctuation in pressure is transmitted from the external canal through the cholesteatoma to the fluid in the horizontal semicircular canal. This causes a flow of endolymph with stimulation of the inner ear causing the subjective sensation of vertigo and the production of nystagmus. When these signs are present, it is said the "fistula test" is positive. Spontaneous vertigo coupled with a positive "fistula test" is an indication for immediate mastoidectomy to prevent bacterial labyrinthitis from occurring.

PAIN

The onset of pain in a chronically draining ear is perhaps the most ominous warning sign of an impending complication. Patients with chronic suppurative ear disease, as opposed to those with acute otitis media, rarely complain of pain unless cholesteatoma or granulation tissue has eroded the thin bone over the dura of the posterior or middle cranial fossa or the sigmoid sinus, producing an epidural or perisinus abscess. This dural irritation, usually associated with pus under pressure, produces the pain. Pain or headache also may be due to brain abscess and this must be ruled out by neurologic evaluation including brain scan, electroencephalogram or arteriography. Proctor,[2] in his study, found pain to be the initial symptom in all patients with otogenic brain abscesses. Immediate surgical intervention is mandatory to prevent intracranial extension of the infection either through erosion of the dura or by retrograde thrombophlebitis of the communicating veins.

FACIAL WEAKNESS

Facial weakness in patients with chronic mastoiditis indicates erosion of the bony covering of the facial nerve within the mastoid or middle ear. Surgical intervention is indicated to remove the source of infection and prevent progression of the paralysis. If the paralysis is complete, electrical stimulation of the nerve (nerve excitability and conduction velocity testing) is helpful in determining if the loss of function is due to a reversible physiologic block or if actual degeneration of the nerve fibers has occurred. If the former is present, simple removal of the cholesteatoma from the nerve should suffice. When neural degeneration has occurred, removal of the cholesteatoma and decompression of the nerve throughout its entire temporal course is indicated. While cholesteatoma frequently erodes the bone of the facial canal and exposes the facial nerve, fortunately, actual facial weakness occurs only in a small number of patients.

CASE REPORTS

The following case reports illustrate the intracranial and labyrinthine complications that may occur with chronic mastoiditis. Note that in several cases, there were warning signs while others presented with the picture of a full-blown intracranial infection.

Epidural Abscess and Otitic Hydrocephalus

Case # 1. This eight-year-old boy was admitted to the Children's Hospital with a two-week history of headaches and vomiting. His right ear had been draining for three years. Stiff neck, fever and blurred vision were noted three days prior to admission. A lumbar puncture at this time was normal. The boy was irritable, febrile (99.2 F) and had a perforated right tympanic membrane with foul discharge. He was noted to have loss of lateral gaze in both eyes (weakness of cranial nerve VI). Lumbar puncture showed an increased pressure but normal cell count and protein. The white blood cell count was elevated (14,700 per cu mm). Roentgenograms demonstrated a large lytic defect in the region of the mastoid which had the typical appearance of cholesteatoma (Fig. 2). Brain scan revealed increased uptake over the right mastoid. Cultures of the discharge were obtained, treatment with antibiotics was started and a mastoidectomy was performed. A large cholesteatoma was found, which had exposed the sigmoid venous sinus and had formed a perisinus abscess.

His postoperative course was uneventful except for the bilateral papilledema and sixth nerve palsy. Three weeks after surgery, repeated lumbar puncture demonstrated the pressure still to be elevated with normal protein and cell count. A ventriculo-

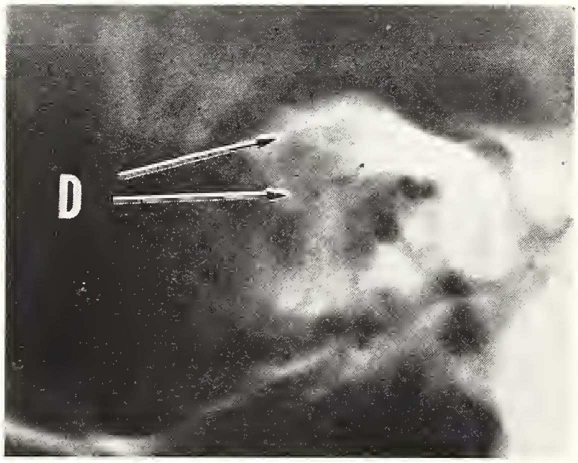

Fig. 2 Radiographic studies revealed a lytic defect in the mastoid due to a cholesteatoma (Case # 1).

gram was attempted; however, no air entered the ventricle, suggesting a small ventricle secondary to increased intracranial pressure. These findings supported the diagnosis of otitic hydrocephalus. After one month, the papilledema and sixth nerve palsy improved and the patient was discharged.

Comment: Otitic hydrocephalus or otogenic intracranial hypertension is thought to originate from a blockage of the superior longitudinal sinus secondary to lateral sinus involvement. This obstruction of the venous outflow interferes with the arachnoid granulations decreasing cerebrospinal fluid absorption and creating an increase in the intracranial pressure. The symptoms and signs are related to this increase in pressure. Characteristically, there is no evidence of intracranial sepsis or localizing signs. This case demonstrates the classic findings of headache, nausea, vomiting, papilledema and bilateral sixth nerve palsy. The high spinal fluid pressure, with a normal cell count and protein, and lack of localizing signs, support the diagnosis. The abnormal brain scan was due to the epidural (perisinus) abscess that was present.

Most patients improve spontaneously as recanalization and collateral flow develop; however, occasionally the papilledema may remain for more than a year, and optic atrophy has been reported.

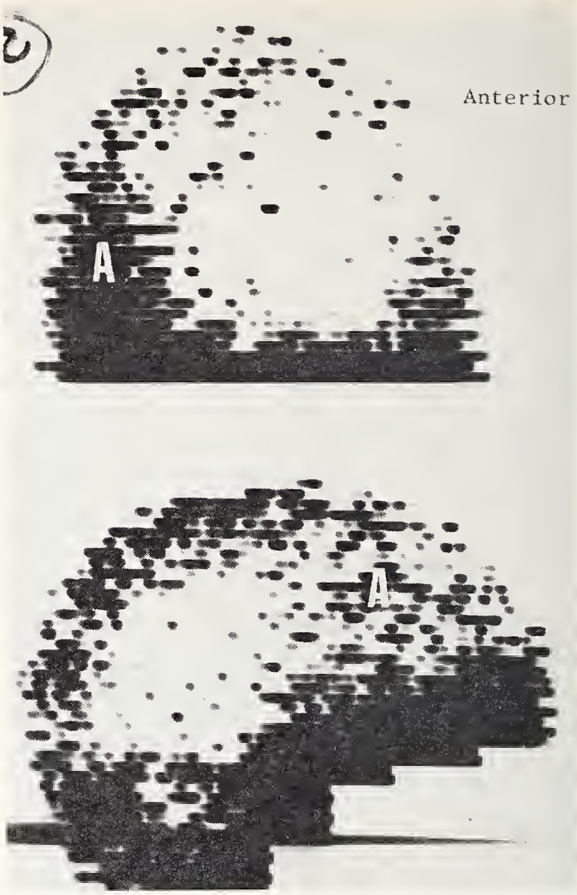

Fig. 3 This brain scan shows an area of increased uptake (A) over the right mastoid and temporal areas (Case # 2).

Epidural and Temporal Lobe Abscess With Meningitis

Case # 2. This 24-year-old white woman was admitted with a history of chronic draining ears since childhood. One week prior to admission, the patient complained of a right-sided earache and dizziness. She became febrile, developed nausea and vomiting and was started on treatment with penicillin. She failed to respond to this therapy and was transferred to the Ohio State University Hospital. On admission, the patient was lethargic, febrile (102 F) and had a stiff neck. Both ears had large perforations filled with granulation tissue and foul drainage. There were no localizing neurologic signs. Her spinal fluid contained 291 white blood cells per cu mm and elevated protein. Brain scan showed an increased uptake over the right mastoid (Fig. 3). On the third hospital day, following improvement of her meningitis, a right mastoidectomy and tympanoplasty type IV was done. An epidural abscess containing 10 ml of purulent material was drained following the removal of a large cholesteatoma. She did well until the fifth postoperative day when she suddenly became semicomatose and developed left hemiparesis. An angiogram was done which suggested a right temporal lobe abscess. This abscess cavity was drained of 15 ml of purulent material through a temporal approach. Thorotrast was injected into the cavity so the resolution or progression of the abscess would be followed radiographically (Fig. 4). The patient required additional surgery three days later for drainage of a subdural empyema and removal of necrotic brain tissue. Following the second procedure, she improved slowly and was subsequently discharged. She returned four months later for a mastoidectomy-tympanoplasty on the opposite ear, which was done without incident. At present, both ears are dry and she is hearing within normal limits. Her hemiparesis has cleared completely.

Comment: The thin bony roof of the mastoid and middle ear forms the floor of the temporal fossa. When infection extends through this barrier, temporal lobe abscess or meningitis may occur. An abscess in the nondominant hemisphere may reach considerable size before obvious localizing signs occur. When present in the dominant hemisphere, asphasia or slurred speech

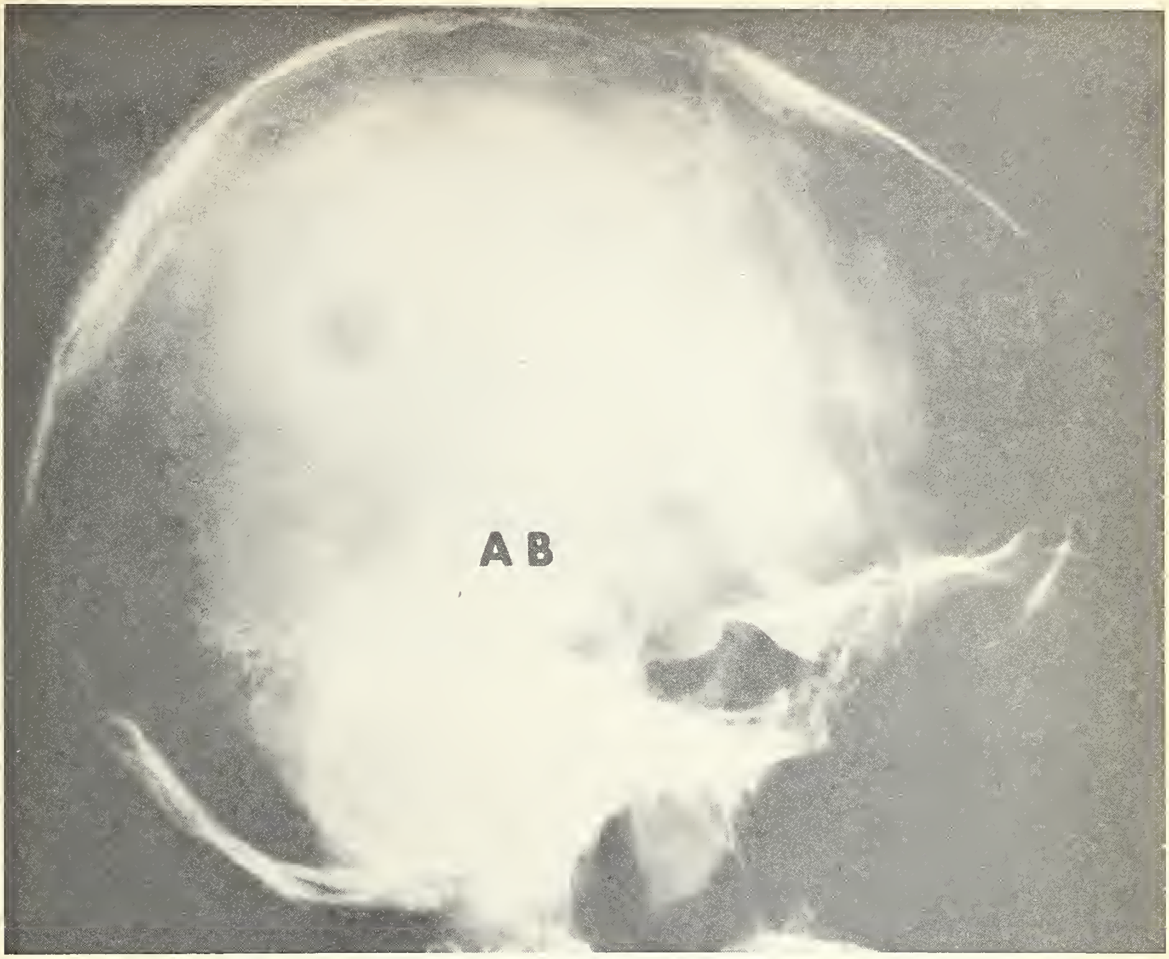

Fig. 4 The temporal lobe abscess cavity (AB) is outlined following the injection of Thorotrast (Case # 2). Note the burr hole through which the abscess was drained.

is the commonest symptom. The next most common neurologic finding is a defect in the visual fields (upper quadrant hemianopsia). Large lesions may produce weakness of the opposite face and body.[3]

This temporal lobe abscess was undoubtedly present upon admission but was not discovered until later for several reasons: (1) initially, there were no localizing signs or symptoms, indicating that the lesion was in the latent stage; (2) the meningitis and epidural abscess that were present were cause enough for the fever, stiff neck and earache; and (3) the usual screening laboratory tests used in the diagnosis of brain abscess were masked by the other infections. The meningitis elevated the spinal fluid protein while the large epidural abscess was reason enough for the brain scan to show an increased uptake over the temporal bone.

Cody[7] recently reported 17 patients in whom latent otogenic brain abscesses were present at the time of mastoidectomy but who did not develop symptoms until the postoperative period. This case illustrates the importance of having a high index of suspicion for masked complications that may be present in a patient with the intracranial spread of an otologic infection.

Labyrinthitis

Case # 3. This 50-year-old man had intermittent drainage and a severe hearing loss in the left ear for 40 years. Fourteen days prior to admission, he developed intermittent whirling vertigo, which had progressed to the point of incapacitation. On examination, the left tympanic membrane had a large central perforation from which epithelial debris was suctioned. The neurologic examination revealed severe ataxia with a tendency to fall to the left, spontaneous and positional nystagmus and an absence of cerebellar signs. The "fistula test" was positive. A mastoidectomy was done, which revealed erosion of the lateral semicircular canal by a large cholesteatoma that also had destroyed the

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ossicular chain. Following mastoidectomy-tympanoplasty, the vertigo subsided and the patient's hearing returned to a serviceable level.

Comment: The symptom of true vertigo in the presence of a draining ear suggests the possibility of a fistula into the vestibular labyrinth, usually in the area of the lateral semicircular canal. If corrected immediately, the condition is usually reversible. However, if the inner ear becomes invaded by bacteria, suppurative labyrinthitis results with total loss of hearing and vestibular function plus the danger of extension into the cranial cavity by way of the various preformed pathways.

Meningitis, Sinus Thrombosis, and Cerebellar Abscess

Case # 4. This 16-year-old girl had chronic drainage from her right ear since early childhood. Mastoid surgery was done six years prior to admission; however, the ear continued to drain. She was admitted following a ten-day history of headache, vomiting, fever, chills and a stiff neck. On admission, she was lethargic and confused.

Examination revealed bilateral papilledema, left abducens nerve palsy, and foul discharge from the right ear. There were no other localizing signs at this time. Mastoid x-rays were compatible with mastoiditis. Brain scan showed an increased uptake over the right mastoid. Cultures were obtained from the ear and spinal fluid. The spinal fluid contained 260 white blood cells per cu mm. Antibiotics were begun and a mastoidectomy was performed the day after admission. A cholesteatoma was found, which had eroded the bone over the sigmoid venous sinus. The sinus was filled with a septic clot which was removed. Following surgery, the patient was stable except for intermittent spiking fever. Her right pupil suddenly became dilated, and she developed right sided ataxia on the 12th postoperative day. A retrograde brachioangiogram revealed a cerebellar abscess. A craniotomy was done and 8 cc to 10 cc of pus drained from the right cerebellar hemisphere. The patient had postoperative cardiac arrest but was resuscitated successfully. The abscess was aspirated several times during the next few days. She was eventually discharged three months after admission, with the sequelae of moderate residual aphasia and significant cerebellar ataxia.

Comment: The clinical signs of sigmoid sinus thrombosis consisting of spiking fever and septicemia are masked in this case by the obvious meningitis. The patient was admitted with headache, nuchal rigidity, lethargy, temperature elevation and confusion; signs and symptoms of meningitis. The diagnosis of sinus thrombosis was made when, at surgery, a perisinus abscess was found. Aspiration of the sigmoid sinus failed to return blood, so the sinus was opened and a septic clot was found and evacuated. Ligation of the jugular vein was not done, since there was no evidence of septic emboli or palpable thrombosis of the vein in the neck.

Brain abscess, the most serious complication of ear disease, classically has a silent, inconspicuous prodrome. This case was typical for a cerebellar abscess with minimal *initial* symptomatology.[2] When an abscess in the cerebellum becomes manifest, vertigo, ataxia and coarse nystagmus are seen. This patient was recovering from the meningitis and mastoid surgery when the abscess suddenly became manifest. Although the patient survived, she had considerable morbidity.

Meningitis, Epidural Abscess, and Cerebellar Abscess

Case # 5. This 27-year-old white woman was admitted following a six-week history of severe left temporal headaches. She had chronic drainage from both ears and several days prior to admission, she had developed pain in the left ear. On admission, she had fever (101 F), vomiting, nuchal rigidity, early papilledema and tenderness over the left mastoid. A lumbar puncture revealed 460 white blood cells per cu mm and a pressure increase to 330 mm of cerebrospinal fluid. On the day of admission, she was taken to surgery and a mastoidectomy was performed. A large cholesteatoma was present, which had eroded the posterior bony plate exposing the posterior fossa dura. There was thickening of dura and 8 ml to 10 ml of purulent material was released from the epidural space. The patient tolerated surgery well; however, in the recovery room three hours after surgery, she had respiratory and cardiac arrest. Resuscitation was initially successful, but the patient died two days later, never regaining consciousness. Autopsy examination demonstrated the presence of a cerebellar abscess and diffuse meningitis. The respiratory arrest was felt to be secondary to herniation of the brain stem through the foramen magnum. Histologic examination of her temporal bones revealed the presence of an identical cholesteatoma in the opposite, unoperated ear (Fig. 5).

Comment: This case demonstrated the silent progression of a cerebellar abscess to an advanced stage with only minimal initial symptomatology. The patient was not incapacitated until the development of meningitis. Vertigo and nystagmus, commonly seen with cerebellar lesions, were not present. The lateralizing signs of weakness or ataxia were not present. Proctor

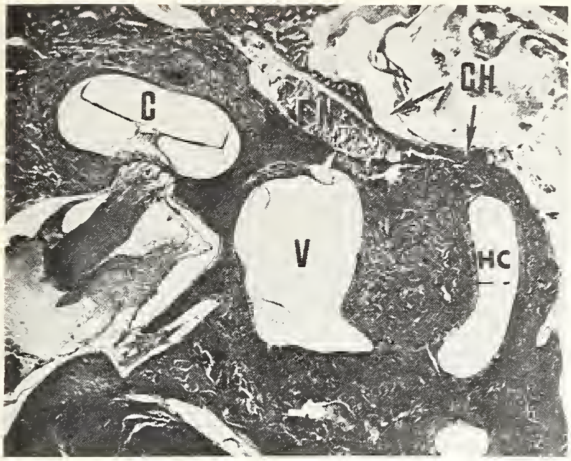

Fig. 5 Temporal bone section of the unoperated ear in Case # 5. Note the proximity of the cholesteatoma (CH) to the horizontal semicircular canal (HC) and facial nerve (FN). Other structures seen are the basal turn of the cochlea (C), vestibule (V) and cochlear and vestibular nerves (N).

mentions that cerebellar abscesses may attain an enormous size with few signs and symptoms. The classic signs and symptoms of a cerebellar abscess are vertigo, ataxia, adiadochokinesis and coarse nystagmus.

Summary

The widespread use of sulfonamides and antibiotics has decreased the complications of acute otitic infections considerably. However, intracranial complications still occur, chiefly as the result of neglected chronic mastoiditis. With modern anesthesia and otologic technics, mastoidectomy is a safe procedure. In the majority of patients, this is the only effective way to prevent these complications from occurring. We have discussed the pathogenesis, signs and symptoms and complications of chronic mastoiditis.

Generic and trade name of drug: Thorium Dioxide—Thorotrast (Fellows—Testagar).

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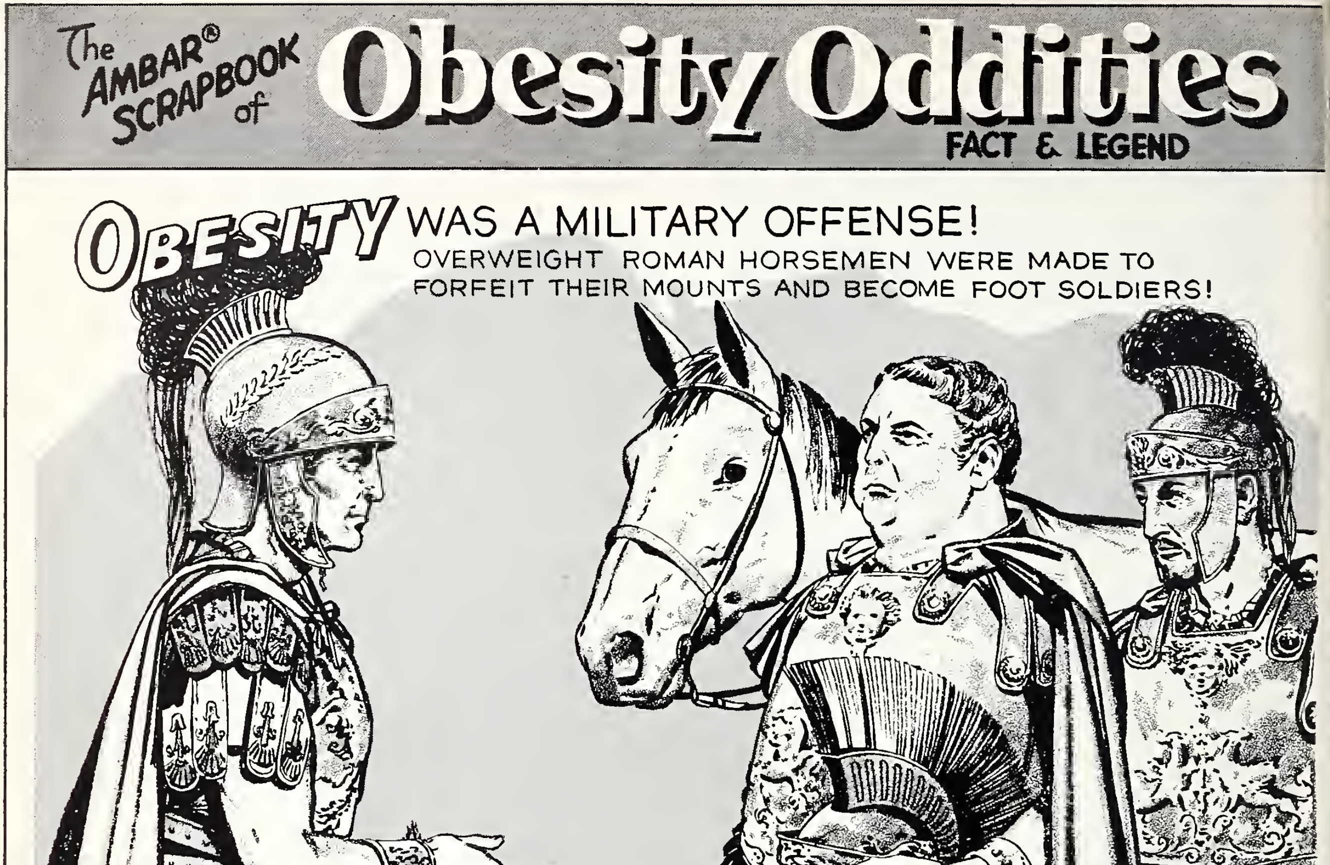
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HE HAD OFTEN EATEN A WHOLE SHOULDER OF MUTTON AND A PECK OF HASTY PUDDING
SHAKESPEARE WAS AWARE OF THE DANGERS OF OBESITY HE WROTE...
Make less thy body hence and more thy grace, leave gormandizing; Know thy grave doth gape for thee wider than for other men.
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methamphetamine HCl 15 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

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BRIEF SUMMARY/**Indications:** Ambar suppresses appetite and helps offset emotional reactions to dieting. **Contraindications:** Hypersensitivity to barbiturates or sympathomimetics; patients with advanced renal or hepatic disease. **Precautions:** Administer with caution in the presence of cardiovascular disease or hypertension. **Side Effects:** Nervousness or excitement occasionally noted, but usually infrequent at recommended dosages. Slight drowsiness has been reported rarely. See package insert for further details.

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Dr. John T. Crowe Installed as MAGP President

John T. Crowe, M.D., Cape Girardeau, was installed as President of the Missouri Academy of General Practice at the organization's 21st Annual Scientific Assembly at The Lodge of the Four Seasons, Lake Ozark on October 24-26, 1969.

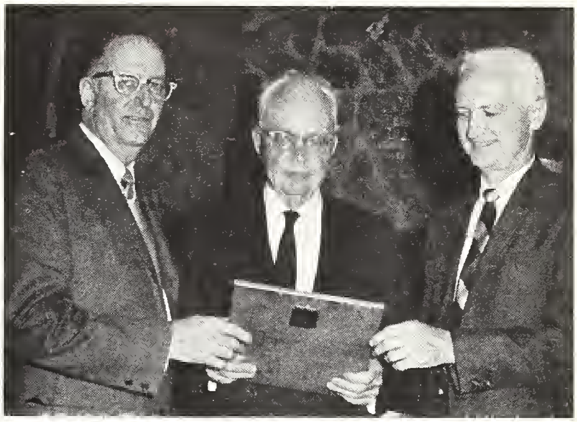
Dr. Crowe succeeds Dr. Barney W. Finkel, St. Louis, retiring president. An active member of the Missouri Academy of General Practice since 1949, he has served on the Board of Directors and as Vice-President and Secretary-Treasurer, in addition to fulfilling many committee appointments. He is particularly known for his leadership role in civil defense and in all phases of disaster emergency planning in Missouri.

Other officers installed at the Saturday banquet by Edward J. Kowalewski, M.D., President of the American Academy of General Practice, are Drs. R. Glenn Elliott, Kansas City, President-Elect and John P. Mabry, Plattsburg, Vice-President. Dr. Lois C. Wyatt, Kirkwood, remains on the Board of Directors as Secretary-Treasurer. Elected to the Board of Directors were Drs. Grover C. Patterson, Carthage; David Hall, Springfield; and Walter Gray, St. Louis.

Dr. Walter T. Gunn, St. Louis, and Dr. Walter J. Stelmach, Kansas City, were reelected Delegates to the American Academy of General Practice, and Dr. Charles A. Nester, St. Louis, and Dr. Charles A. Worley, Sweet Springs, were elected Alternate Delegates.

In addition to Dr. and Mrs. Kowalewski, special guests of the MAGP included Dr. William Seidler, President of the Iowa Academy of General Practice, and Mrs. Seidler and the entire sophomore class of the University of Missouri School of Medicine.

Edward J. Kowalewski, M.D., President of the American Academy of General Practice, was the principal speaker at the annual banquet on Saturday.



Elmer Ellis, Ph.D. *(center)*, President Emeritus of the University of Missouri-Columbia, was the recipient of the MAGP 1969 Annual Citation Award. Vernon E. Wilson, M.D. *(right)*, Vice-President for Academic Affairs and former Dean of the School of Medicine at the University, introduced Dr. Ellis. John T. Crowe, M.D. *(left)*, President of the Academy, presented the award.

The sophomores were invited to the meeting as a part of the Academy's continuing program to improve relationships between practicing physicians and medical students. They were guests for the scientific programs on Saturday and Sunday, as well as the annual banquet at which Dr. Kowalewski was the featured speaker.

The MAGP meeting this year was patterned after a golf theme and was preceded by a Board meeting on Friday and a golf tournament. The scientific sessions presented outstanding speakers.

The Annual Citation award, which is the highest presented by the MAGP, was awarded to Elmer Ellis, Ph.D., President Emeritus of the University of Missouri.

Members of the sophomore class at the M.U. School of Medicine and their wives were special guests at the meeting and banquet.

medical melange

Notes of interest from Here . . . . and There

Gov. **Warren E. Hearnes** has named **Dr. William W. Monafo, Jr.**, Kirkwood, to the **State Board of Registration for the Healing Arts.** Dr. Monafo will serve until Sept. 3, 1973. He replaces **Dr. William E. Powers,** St. Louis, whose term has expired.

Drs. **Dennis E. Hite, Thomas K. Beene** and **Jim C. Porter** have opened their new Medical Clinic in Lebanon. The modern building, which is located across the street from Wallace Hospital, has eight examining rooms plus doctors' offices. The clinic employs a staff of eight.

Dr. Robert G. Hughes, St. Louis, was installed as president of the St. Louis Academy of General Practice at a dinner dance at the Missouri Athletic Club in St. Louis recently. He succeeds **Dr. Leo L. Wacker** as president of the Academy. —**Dr. William Mayer,** Dean of the University of Missouri-Columbia School of Medicine and Director of the University Medical Center, was the guest speaker for the Jefferson City Rotary Club in December.

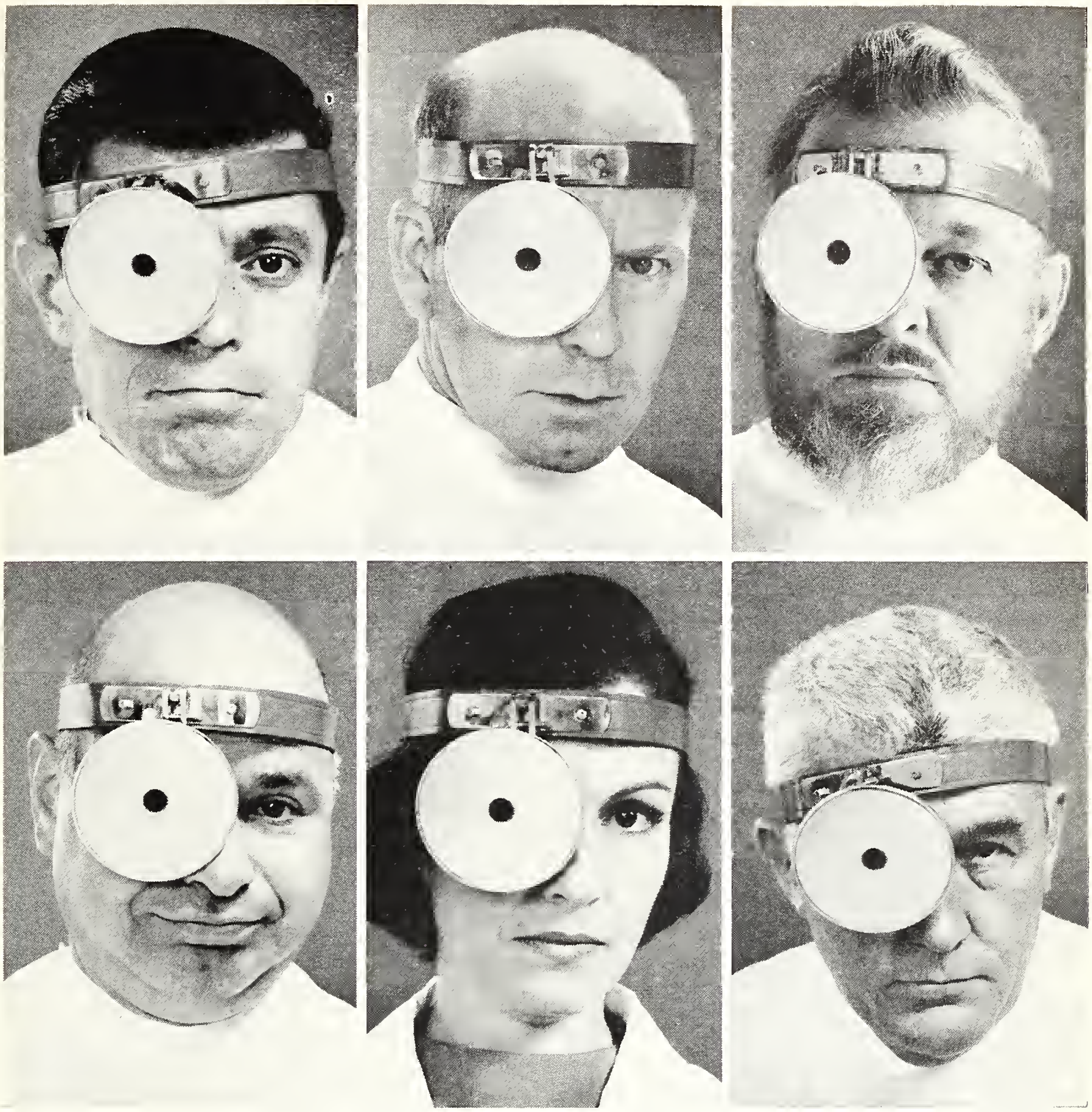
Dr. Jacob G. Probstein, former director of the department of surgery, Jewish Hospital of St. Louis, recently presented the Nat Koplar Surgical Award plaque to **Dr. Arthur E. Baue,** surgeon-in-chief at the hospital. The annual award was established by the Nat Koplar estate, of which Dr. Probstein is a trustee. The award will be given for the next ten years to the resident or intern credited with the most creative research in surgery during the year.

Dr. Leo H. Pollock, Kansas City, returned from a six-weeks surgical tour by members of the International College of Surgeons on Dec. 1, 1969. He attended surgical theaters and seminars in Tokyo, Hong Kong, Bangkok, Australia and New Zealand and presented a paper entitled "Tumors of the Intestine, Including Regional Enteritis" at several of the University hospitals.

Dr. G. M. Ragsdale, Paris, was honored at a special Veterans' Day program which recognized the oldest Paris veteran, the youngest and the most recently discharged and decorated veteran of the present war. Dr. Ragsdale, veteran Paris physician and the oldest on the list, is a charter member of the Monroe American Legion Post.

Dr. Fred O. Tietjen, Jefferson City, has been elected president and chief of the medical staff at Memorial Community Hospital for 1970. **Dr. Jerome H. Schmidt** was elected vice-president and **Dr. Philip E. Morgan** was elected secretary-treasurer. **Drs. Landon H. Gurnee** and **Robert H. Tanner** are newly-elected members of the Executive Committee.

Approximately 100 scientists, graduate and medical students attended the annual meeting of the Missouri Section of the Society for Experimental Biology and Medicine at Busch Memorial Center in St. Louis in December. Program participants from Missouri, Washington and St. Louis Universities heard Dr. R. Di Luzio, professor and chairman of the department of physiology at Tulane University School of Medicine, who discussed "Macrophage Recognition Dysfunction—A New Clinical Entity." **Dr. Leo C. Senay, Jr.,** professor of physiology at St. Louis University School of Medicine, was program chairman.



"All Otolaryngologists are Alike"

Just look at them and you can see how much they have in common. Besides, they all go through pretty much the same training, and pass the same kinds of tests, and measure up to the same sort of standards. Therefore, all otolaryngologists are alike. Right?

Wrong! But that's no more preposterous than what some people say about aspirin. Namely: since all aspirin is at least supposed to come up to certain required standards, then all aspirin tablets must be alike.

Bayer's standards are far more exacting. In fact, there are at least nine *specific differences* involving moisture content, purity, potency and speed of tablet disintegration, which make the manufacture of Bayer® Aspirin so different.

These Bayer standards result in significant product benefits, including gentleness to the stomach and product stability, that enable Bayer Aspirin tablets to *stay* strong and gentle until they are taken.

So next time you hear someone say that *all* aspirin tablets are alike, you can say, with confidence, that "it just isn't so."

You might also say that all otolaryngologists aren't alike, either.

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ASPIRIN
FAST PAIN RELIEF
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CHILDREN
NEW!
DOUBLE
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CAP

(Left) Dr. Stanley S. Peterson, MSMA Delegate to the AMA, describes the activities and responsibilities of the Missouri delegates in the AMA House of Delegates. Mr. Tim Norbeck, AMA Public Affairs Representative *(foreground)*, also spoke to the group. (Center) Guests at the Greene County Orientation Program listen intently as Dr. Oral B. Crawford discusses medical ethics. *(Right)* Dr. Charles E. Lockhart, President of Greene County Medical Society and host, welcomes new members and applicants and opens the program.

Greene County Welcomes New Members With Second Annual Orientation Program

Twenty new and potential members of the Greene County Medical Society were given the advantage of a special educational program at the Society's Annual Orientation Program in Springfield recently.

The program, which is patterned after the "Fireside Meetings" of a few years ago, is designed to improve member relations and interest by acquainting new members and applicants with the value of membership in the county society, Missouri State Medical Association and the American Medical Association and their organizational structure.

The new members and applicants were invited via a personal letter from President Charles E. Lockhart to attend the informal meeting at his home.

At the meeting, both regular members and new members received a specially-prepared orientation booklet which contained organizational charts, the Society's constitution and bylaws, information about the Society-sponsored Blue Cross-Blue Shield program, the speaker's bureau, telephone answering service, principles of medical ethics, AMA Judicial Council opinions and reports, AMPAC information, a personal information questionnaire and the Greene County Medical Society Office Manual of Operations, which outlines in detail the responsibilities of the Executive Staff. The booklet also contained valuable information for new physicians practicing in the community.

Discussions were planned so that everyone in attendance had an opportunity to participate in the exchange of ideas and ask questions relative to the county, state or national societies and organized medicine, in general.

In addition to Dr. Lockhart, program participants were Dr. Oral B. Crawford, Chairman of the Medical Ethics Committee; Dr. Stanley S. Peterson, MSMA Delegate to the AMA; Dr. James T. Brown, member of the State Board of Registration for the Healing Arts; Dr. Howard J. McAlhany, Councilor for the MSMA Eighth District; Mr. Tim Norbeck, Public Affairs Division, AMA; Mr. Ray McIntyre, Executive Secretary of the MSMA; and Mr. Gary Schnedler, Executive Director, Greene County Medical Society.

Success of the orientation effort has been indicated by continued interest and exploration of various Society programs by new members.

Attend the 112th MSMA Annual Session—April 2-5, 1970

WASHINGTON

A Senate subcommittee said that the number of medical malpractice suits probably will increase and "the situation threatens to become a national crisis."

Sen. Abraham Ribicoff (D., La.), chairman of the Subcommittee on Executive Reorganization which has been reviewing the federal role in the nation's health care problems for nearly two years, reported eight conclusions after an extensive staff study. They are:

"1. The number of malpractice suits and claims is rising sharply in certain regions of the country. The size of judgments and settlements is increasing rapidly.

"2. Most malpractice suits are the direct result of injuries suffered by patients during medical treatment or surgery. The majority have proved justifiable. These suits are the indirect result of a deterioration of the traditional physician-patient relationship.

"3. The publicity given to higher malpractice judgments and settlements, based frequently on new legal precedents, is likely to trigger increasing litigation in other states. The situation threatens to become a national crisis.

"4. Already, higher judgments and settlements are having the following direct results:

(a) Companies providing malpractice insurance are increasing the cost of coverage.

(b) These costs—in the form of higher charges—are being passed on to patients, their health care insurance companies and federal health care programs.

"5. The rising number of malpractice suits is forcing physicians to practice what they call defensive medicine, viewing each patient as a potential malpractice claimant. Physicians often order excessive diagnostic procedures for patients, thereby increasing the cost of care. Moreover, they are declining to perform other procedures, which in themselves, may entail some risk of patient injury.

"6. At present, it appears that no one affected by the rise in malpractice suits and claims has been able to deal with this problem in a manner that promises to alleviate this situation.

"7. The lion's share of the total cost to the insurance companies of malpractice suits and claims goes to the legal community.

"8. There is a definite federal role in the malpractice problem."

Specialists listed as having "a greater potential exposure to malpractice suits" were orthopedic surgeons, general surgeons, neurosurgeons, anesthesiologists, obstetricians and gynecologists.

The 1,150-page report included responses from staff inquiries to the American Medical Association, the American Hospital Association, lawyers and malpractice insurance companies.

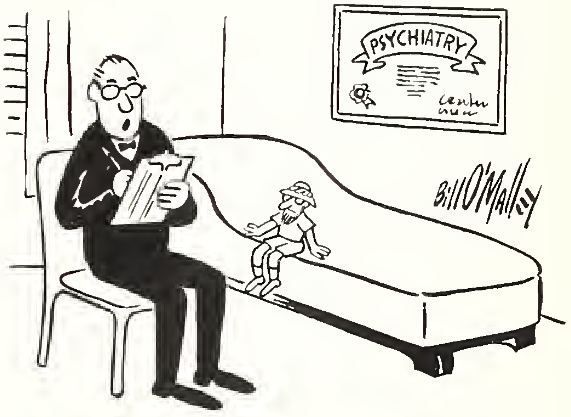
If the situation continues to worsen, the report said, the federal government "may have to consider . . . a reinsurance pool to which it would contribute."

If the federal government moves into the malpractice area, the report said, it also should consider:

". . . whether medical or surgical injury to a patient is a community responsibility and, therefore, compensable by the community.

". . . whether it must provide legal aid to the poor to help them seek redress from personal medical or surgical injury.

". . . whether it will insist upon creation of more effective regulatory devices over health professionals and health facilities to assure that those who are providing care are competent to do so."



". . . you went into the medicine man's tent. Then what happened?"

Convalescing . . . but still a long way to go. Anxiety can make it even longer.

Convalescence following medical or surgical procedures may be almost endless to an anxious patient. And, indeed, anxiety with some patients actually retards progress—for example, by inducing insomnia and reducing cooperation.

As physicians have found during nearly 15 years of widespread use, Equanil may be a beneficial part of aftercare. It helps relieve anxiety and tension, thus often aiding your primary therapy.

Indications: For use in management of anxiety and tension occurring alone or as accompanying symptom complex to medical and surgical disorders and procedures. Though not a hypnotic, fosters normal sleep through antianxiety and related muscle-relaxant properties.

Contraindications: History of sensitivity to meprobamate.

Important Precautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use has been reported to result in dependence or habituation in susceptible persons, as alcoholics, ex-addicts, and other severe psychoneurotics. After prolonged excessive dosage, reduce dosage gradually to avoid possibly severe withdrawal reactions. Abrupt discontinuance of excessive doses has sometimes resulted in epileptiform seizures.

Warn patients of possible reduced alcohol tolerance, with resultant slowing of reaction time and impairment of judgment and coordination.

Reduce dose if drowsiness, ataxia or visual disturbance occurs; if persistent, patients should not operate vehicles or dangerous machinery.

Side Effects include drowsiness, usually transient; if persistent and associated with ataxia, usually responds to dose reduction; occasionally concomitant CNS stimulants (amphetamine, mephentermine sulfate) are desirable. Allergic or idiosyncratic reactions are rare, but such reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Previous history of allergy may or may not be related to incidence of reactions. Mild reactions are characterized by itchy urticarial or erythematous maculopapular rash, generalized or confined to groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically as with epinephrine, antihistamine and possibly hydrocortisone. Aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia have occurred rarely, almost always in presence of known toxic agents. A few cases of leukopenia, usually transient, have been reported on continuous administration.

Meprobamate may sometimes precipitate grand mal attacks in patients susceptible to both grand and petit mal. Extremely large doses can produce rhythmic fast activity in the cortical pattern. Impairment of accommodation and visual acuity has been reported rarely. After excessive dosage for weeks or months, withdraw gradually (1 or 2 weeks) to avoid recurrence of pretreatment symptoms (insomnia, severe anxiety, anorexia). Abrupt discontinuance of excessive doses has sometimes resulted in vomiting, ataxia, tremors, muscle twitching and epileptiform seizures. Prescribe very cautiously and in small amounts for patients with suicidal tendencies. Suicidal attempts have resulted in coma, shock, vasomotor and respiratory collapse and anuria. Excessive doses have resulted in prompt sleep; reduction of blood pressure, pulse and respiratory rates to basal levels; and occasionally hyperventilation. Treat with immediate gastric lavage and appropriate symptomatic therapy. (CNS stimulants and pressor amines as indicated.) Doses above 2400 mg./day are not recommended.

Composition: Tablets, 200 mg. and 400 mg. meprobamate. Coated Tablets, WYSEALS® EQUANIL (meprobamate) 400 mg. (All tablets also available in REDIPAK® [strip pack], Wyeth.) Continuous-Release Capsules, EQUANIL L-A (meprobamate) 400 mg.

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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WILLIAM T. GRIFFIN, M.D. *and*
NATHAN C. GALLOWAY, M.D., *Columbia*

Pelvic Retroperitoneal Fibrosis

Case Report

Retroperitoneal fibrosis occurring in patients treated with methysergide has been reported.[1-5] Characteristic symptoms, including edema with pain in the back, lower abdomen and inner thigh, were described by Ormond in 1948.[6] Lymphangiography, intravenous and retrograde pyelography, arteriography and laparotomy may be of assistance in the diagnosis.[1-5, 7]

Because patients with primary gynecologic disease frequently present similar symptoms and findings, differential diagnostic consideration of drug associated with fibrotic disorders is appropriate.

The following report describes a patient with a retroperitoneal fibrosis and illustrates the value of specific radiologic procedures in establishing the diagnosis.

Case Report

A 50-year-old postmenopausal white woman, Gravida 3, Para 3, Aborta 0, was referred to the University of Missouri Medical Center in January, 1966 because of lower abdominal pain and progressive edema of the lower extremities. The tentative referral diagnosis was "advanced carcinoma of the ovary."

The patient stated that she had been well until October, 1965, when she first noted pain in the lower abdomen and back. This was followed by progressive edema of both legs, becoming severe enough to necessitate sleeping in an upright position, increased fatigability and decreased exercise tolerance.

She reported a 30 lb weight gain since the onset of symptoms with marked constipation, nausea and vomiting for three weeks.

A barium enema, upper gastrointestinal and gall bladder series obtained by her referring physician in October, 1965 were reported as normal. The patient stated that she had noted a diminished output of urine for three weeks prior to admission. Her menses had always been somewhat heavy, with slight dysmenorrhea and premenstrual tension. Because of severe migraine headaches, the patient had been taking 4 mg to 12 mg of methysergide maleate (Sansert) daily since early 1965.

Admission Physical: The subject, a woman who

Presentation of a case report of retroperitoneal fibrosis associated with long-term methysergide ingestion which emphasizes the similarities, symptoms and findings to those associated with primary gynecologic disease. Conservative management of this condition is recommended by the authors.

Dr. Griffin is Associate Professor, Department of Obstetrics and Gynecology, University of Missouri School of Medicine. Dr. Galloway was Associate Professor of Medicine at the School of Medicine at the time this paper was written. He now is in the private practice of internal medicine in Odessa, Texas.

was 5 ft 3 inches tall, appeared anemic and weighed 189 lb with a blood pressure of 182/96. The lungs were clear. Auscultation of the heart revealed a regular sinus rhythm with a Grade IV holosystolic murmur along the left sternal border. Clinically, the heart was felt to be enlarged. Marked pitting edema of both lower extremities was present, extending superiorly to the umbilicus. The skin was dry, pale and rough.

Pelvic exmaination revealed the external genitalia to be very edematous. The vaginal mucosa was normal, the cervix well epithelialized and the uterus slightly enlarged, anterior and fixed. The entire contents of the pelvis seemed to be encased and fixed in a woody induration, without specific nodularity. Pap smears of the cervix and vagina were Class I, and biopsies indicated proliferative endometrium.

Laboratory Data: On admission, the patient's hemoglobin level was 7.1 gm/100 cc; hematocrit reading, 22%; serum values—Na, 151 mEq/liter; K, 5 mEq/liter; Cl, 118 mEq/liter; HCO_3, 17 mEq liter; PBI, 6.1/100 cc; BUN, 81 mg/100 cc; serum creatinine, 7.5 mg/100 cc; urinalysis, normal; LE preparation, negative (three determinations); total protein value, 6.4 mg/100 cc; albumin value, 3.5 gm/100 cc; FBS, 113 mg/100 cc; reticulocyte count, 2.4%; and WBC, 4,700 with normal differential. Chest x-ray showed left ventricular prominence. An electrocardiogram was normal. Retrograde pyelography (Fig. 1) revealed the ureters to be deviated medially with partial midportion obstruction and marked hydroureter and hydronephrosis. A lymphangiogram (Fig. 2) demonstrated enlarged pelvic and periaortic nodes without nodal filling defects. Inferior vena cava-

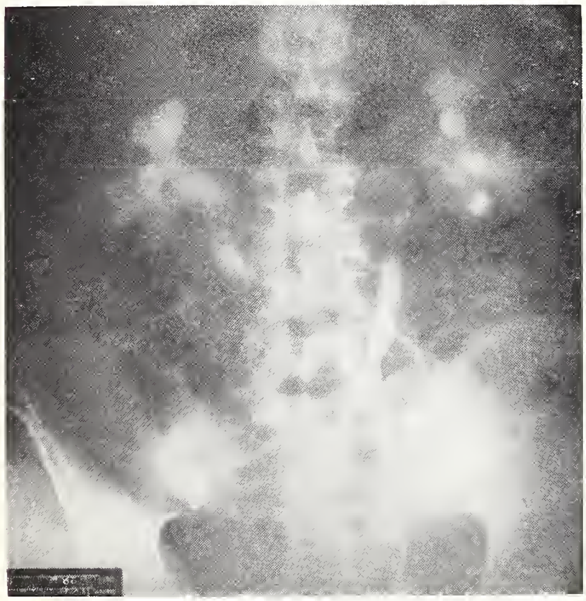

Fig. 1 Retrograde pyelography which demonstrated both the medial deviation and hydroureter associated with retroperitoneal fibrosis.

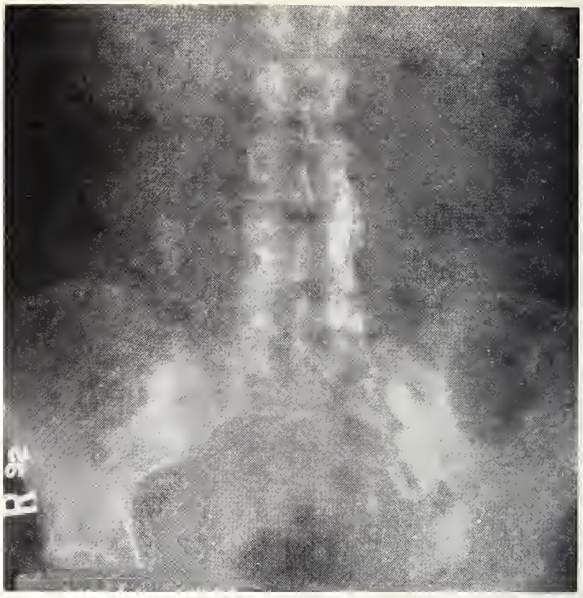

Fig. 2 Lymphangiogram which demonstrated no nodal filling defects.

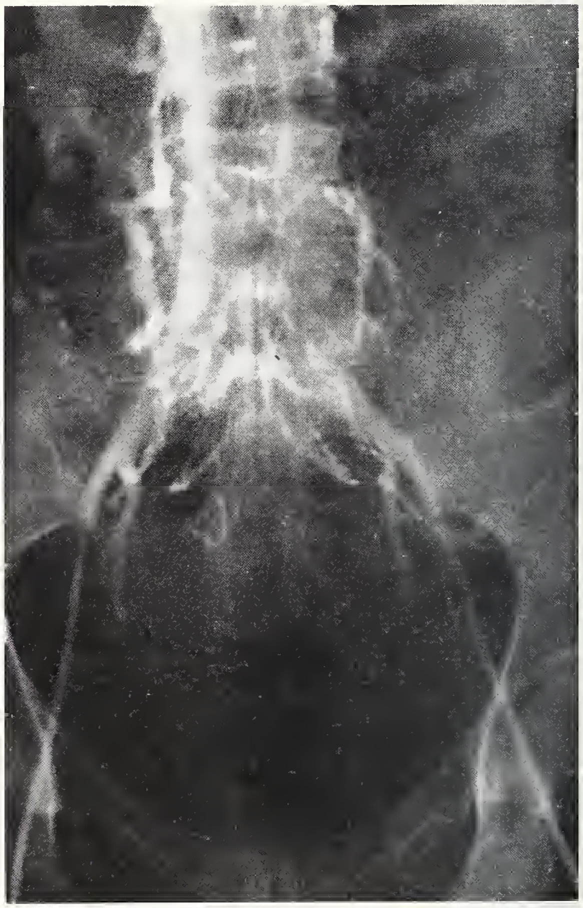

Fig. 3 Anterior-posterior x-ray which demonstrated a constriction of the inferior vena cava at the level of L4, L5 and S1 with well-increased collateral circulation.

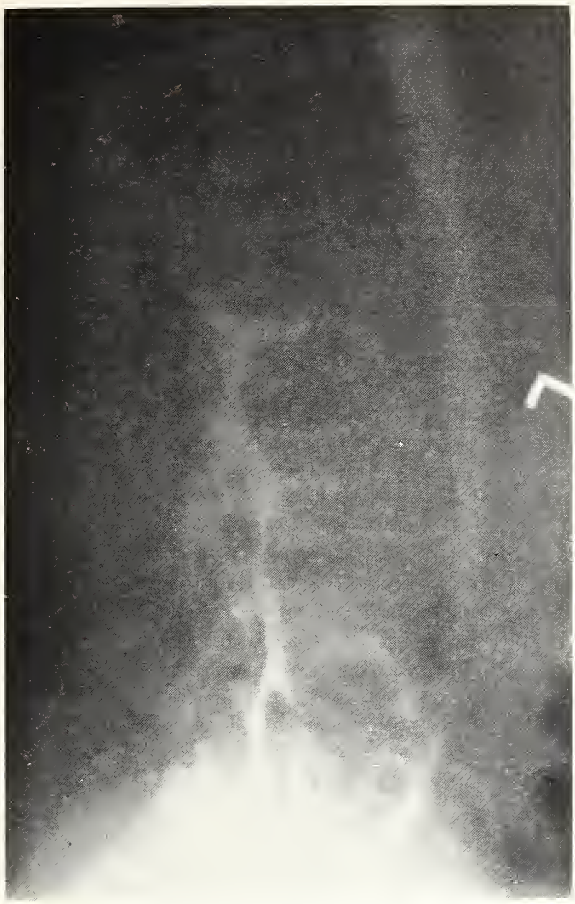

Fig. 4 Lateral film demonstrated the anterior-posterior constriction of the inferior vena cava.

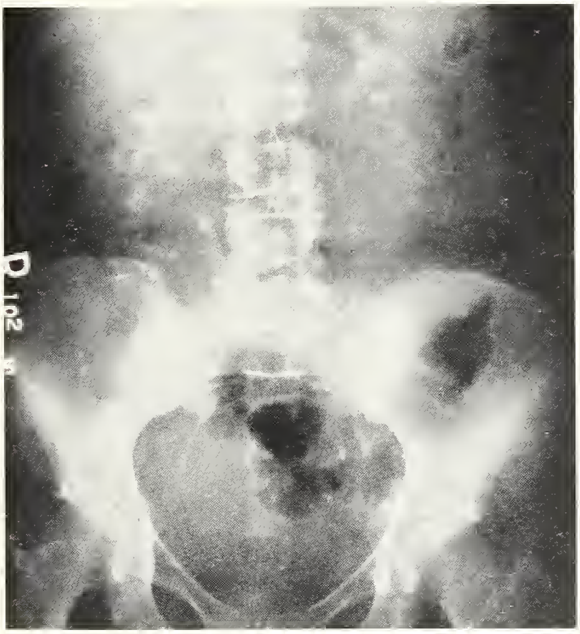

Fig. 5 Intravenous pyelogram which followed conservative treatment with minimal hydronephrosis and hydroureter.

grams (Figs. 3 and 4) revealed distinct constriction at the level of L4, L5 and S1 with marked increase in the number of collateral vessels. Venous pressures in the femoral and iliac veins were elevated.

Clinical Course: Treatment consisted of discontinuance of methysergide, fluid restriction, 40 gm protein diet, three units of packed red blood cells and 30 mgs of prednisone per day. On this program, clinical improvement was evident and by the tenth day, BUN value was 21 mg/100 cc; serum creatinine value, 2 mg/100 cc; and serum albumin value, 4.3 gm/100 cc. The patient had lost 44 lb.

Studies in September, 1966 revealed essentially normal IVP's (Fig. 5); BUN value, 18 mg/100 cc; serum creatinine value, 1.3 mg/100 cc; and uric acid value, 6 mg/100 cc.

Renal studies repeated in November, 1968, were interpreted as being within normal limits.

Discussion

In 1966, Graham[1] reported 27 cases of retroperitoneal fibrosis associated with methysergide ingestion. Thirteen of these were diagnosed and treated nonsurgically. Mills[4] also reported favorable response to conservative treatment. Etiologic mechanisms have been postulated by other authors.[5, 8]

Analysis of history, physical and laboratory findings in this report would suggest that the disorder, even when of considerable duration and severity, is reversible and that primary management should be nonsurgical.

Retroperitoneal fibrosis, diagnosed by history of methysergide ingestion and the presence of ureteral obstruction and medial deviation, partial vena-caval obstruction in the AP diameter and partial lymphatic obstruction, responds satisfactorily to conservative management.

Summary

1. A case of retroperitoneal fibrosis associated with long-term methysergide ingestion is presented.
2. The similarities, symptoms and findings to those associated with primary gynecologic disease are emphasized.
3. Conservative management of this condition is recommended.

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(Continued on page 42)

MATT H. BACKER, JR., M.D., THOMAS J. COOPER, JR., M.D., ***and***
RAYMOND E. PROBST, M.D., ***St. Louis***

Cone-Cryostat Cervical Biopsy in a Small General Hospital

Thirty-nine women suspected of uterine malignancy were evaluated by ring biopsy of the cervix and curettage, and the tissues so removed were studied immediately by cryostat frozen section. In all but two cases, it was possible to proceed immediately with definitive treatment on the basis of information derived from the frozen section. Lower morbidity and significantly shorter hospital stays resulted. The authors believe the method is medically sound, advantagous to the patient and practical for use in the smaller institution. Drs. Backer and Probst are from the Department of Gynecology and Obstetrics at St. Louis University and St. Anthony's Hospital. Dr. Cooper is Chief Pathologist at St. Anthony's Hospital.

We have been impressed for some time with the fundamental soundness of evaluating ring biopsies of the cervix uteri by frozen section and, in most cases, proceeding with immediate definitive treatment based on the frozen section diagnosis. This approach has been championed by Kaufman[1, 2] and endorsed by Dockerty,[3, 4] Rutledge[5] and others,[6, 7] but it is still not accepted by the majority of pathologists or gynecologists as a completely satisfactory method for evaluating the cervical biopsy. Most prefer the traditional or "quick" paraffin section followed by definitive treatment at a later date. In the city of St. Louis, for example, the small hospital (250 beds) from which these cases are reported is the only one offering cryostat section evaluation of the cervical biopsy as a *routine* procedure.

Review

Previous reports on the cone-cryostat method cite large numbers of cases evaluated in large institutions. This report concerns only a small number of cases (39) managed in a small general hospital. The purpose of the report is to emphasize that the method is practical and valuable in the small hospital. In 1967, Kaufman[2] reported from Baylor University on 429 patients evaluated by the cone-cryostat technique, carefully correlating frozen and paraffin sections. His experience demonstrated the accuracy of frozen section study. Powell, *et al*[7] in April, 1969 reported on 274 patients with abnormal cytology evaluated by the cone-cryostat technique. Paraffin sections on their patients reported 24 hours later resulted in an upgrading of the diagnosis in 26 instances and a downgrading in three others. In this series,[7] conizations were done by residents and attending staff men and read by more than one pathologist; in some cases, the pathologists did not agree on the diagnosis.

Dockerty[4] stated that, during the period of 1950-1965 at the Mayo Clinic, some 1,800 cervical cone biopsies were evaluated by a frozen section technique and in only 1% of the cases was deferment to paraffin section necessary to delineate the extent of a cervical lesion. Rutledge and Ibanez[5] emphasize that the microtome cryostat method of processing the cervical biopsy yields permanent slides of excellent quality within 30 minutes and is a "highly satisfactory" technique for both the gynecologist and the pathologist.

Indications

The *indication* for cone-cryostat biopsy was an abnormal cytologic smear in all of our cases except one. In that one case, cervical carcinoma in situ was found in material from a patient curetted for abnormal uterine bleeding. Among the 39 cases with abnormal cytology, nine were Class IV, 24 were Class III and six were repeatedly Class IIR (a designation given by our cytologist to smears requiring a repeat smear). These 38 cases, plus five mentioned below, represent the abnormal cytology "harvest" from two years of routine screening in a two-man private practice.

Five additional cases with abnormal cytology but with obvious gross lesions were diagnosed as invasive cancer by office punch biopsy. This is mentioned only to explain the small number of invasive cancers, namely two which were found in the cases subjected to conization biopsy. Our policy is to punch-biopsy lesions we believe are invasive cancer in the office and to perform a ring biopsy (cold conization) on all other cases requiring cervical biopsy in the hospital. Experience in other cases, as well as the one in which carcinoma in situ of the cervix was found in curettings, makes us lean toward shallow conization of the cervix in almost every patient who requires diagnostic D & C.

Method of Biopsy

Preoperative preparation for hysterectomy is made in each case. This includes, as a minimum, a hemogram, urinalysis, chest x-ray and SMA-12 blood chemistry screening. One unit of blood is matched and additional blood of the same type is available. Intravenous pyelography and barium enema are performed when indicated, and consultation with an internist is sought in some cases.

At operation, the cervix is dilated and the uterus is fractionally curetted. The uterus is curetted onto the shiny side of a piece of Telfa which has been laid in the vagina. From this, the curettings are then easily scraped into a jar of formalin. Then, a cold cone of the cervix is excised (Fig. 1), which removes all eroded ectocervix plus a thin margin of normal ectocervix. The endo-cervical plug is cut thin, but deeply. The cervical cone and the curettings are immediately hand-carried to the pathologist, where both are sectioned by the technique described below. The cervical defect is closed with four Sturmdorf type sutures taken on the cervix at 12, 3, 6 and 9 o'clock (Fig. 2).

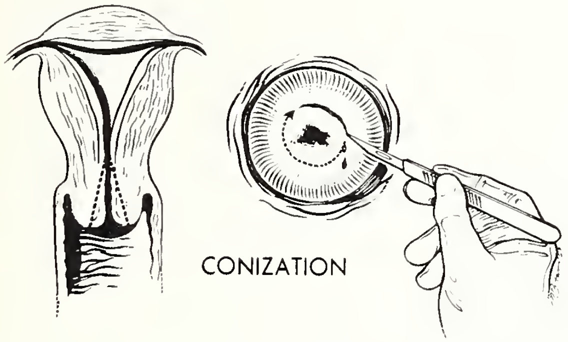

Fig. 1 Conization.

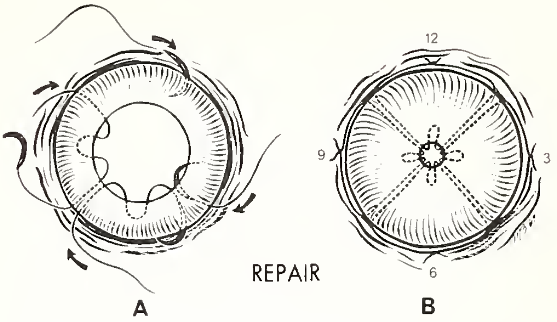

Fig. 2 Repair.

The feasibility of vaginal hysterectomy is evaluated by cervical traction and repeat bimanual examination. The patient is kept lightly anesthetized. Some 20 to 25 minutes elapse, on the average, before the pathology report is available.

Histopathologic Technique

The pathologist cuts the entire conization specimen radially into sections 4 mm to 5 mm thick and places three segments of the cone on each of several freezing heads. An International cryostat, Model CTI, is used. The temperature is set at 20 F and the heads are placed on the freezing block for 60 to 90 seconds. Sections are cut at 6 μ. Each slide is identified for easier correlation with subsequent paraffin sections. The curettings are mounted in a drop of OCT solution and frozen.

The following staining procedure is used:

1. The cut sections are placed in buffered neutral formalin for 30 seconds (this initial step of fixing after sectioning improves the quality of the slides);
2. washed in water;
3. dipped in Harris Hematoxylin for two minutes, 15 seconds;
4. washed in water;
5. decolorized in 1% acid alcohol solution;
6. washed in water;
7. placed in saturated $NaHCO^3$ until blue in color;
8. washed in water;
9. dipped ten times in each of the following: 70% alcohol, 80% alcohol, 95% alcohol and absolute alcohol;
10. placed in Alcoholic Eosin for 10 seconds;
11. dipped two times in Xylene, and ten more times in a second jar of Xylene;

12. covered with Protexx mounting solution and a coverslip.

This technique produces a permanent slide. The pathologist begins to read the first sections as the remainder are being processed. Recuts are ordered as indicated. After all sections have been thoroughly studied, the diagnosis is transmitted back to the operating room.

The tissues on the freezing block are permitted to thaw and are transferred on lens paper to a cassette for paraffin processing.

Fig. 3 illustrates a cryostat section of dysplasia. The edges of two segments of the cone are in apposition on the picture. Fig. 4 illustrates carcinoma in situ under low and higher power. The high power photograph illustrates the excellent detail available by this method. Fig. 5 illustrates carcinoma in situ with gland invasion and compares cryostat with paraffin sections of the same area. Fig. 6 illustrates cryostat section of invasive carcinoma.

Table 1 compares the cryostat section diagnoses with the Class of the preoperative cytologic smear.

TREATMENT

On the basis of cryostat section information, 24 of the 39 patients biopsied and curetted were subjected to immediate hysterectomy. Hysterectomy was postponed in one patient until the following day, due to the absence of our regular pathologist and the reluctance of his replacement to rule out invasion on cryostat section. Thirteen patients had nothing more than D & C and cold conization.

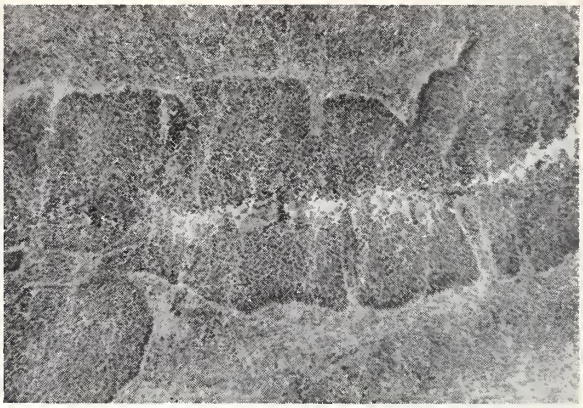

Fig. 3 Cryostat section of dysplasia.

Hysterectomies were vaginal in 22 cases, seven with needed repairs. The patients with dysplasia (three) and metaplasia (one) who had

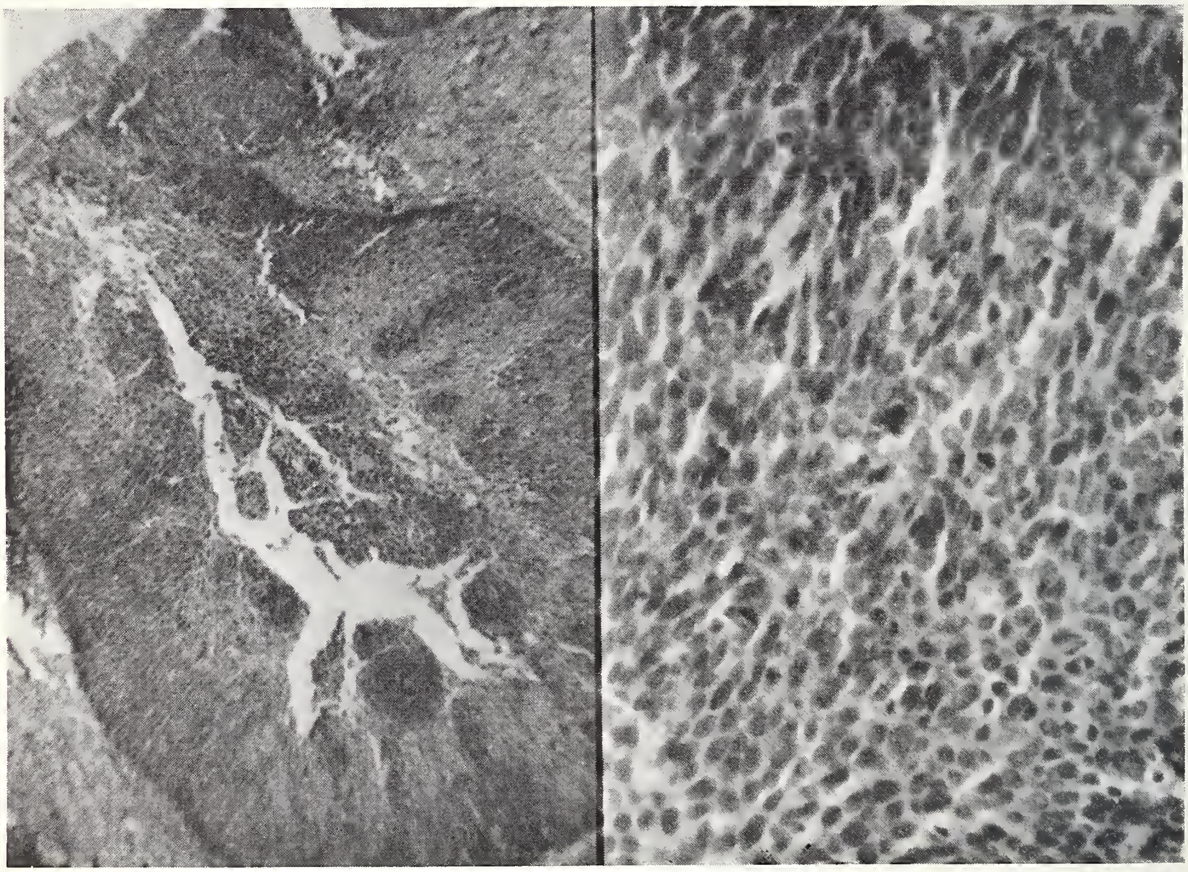

Fig. 4 Carcinoma-in-situ under low power (left) and high power (right).

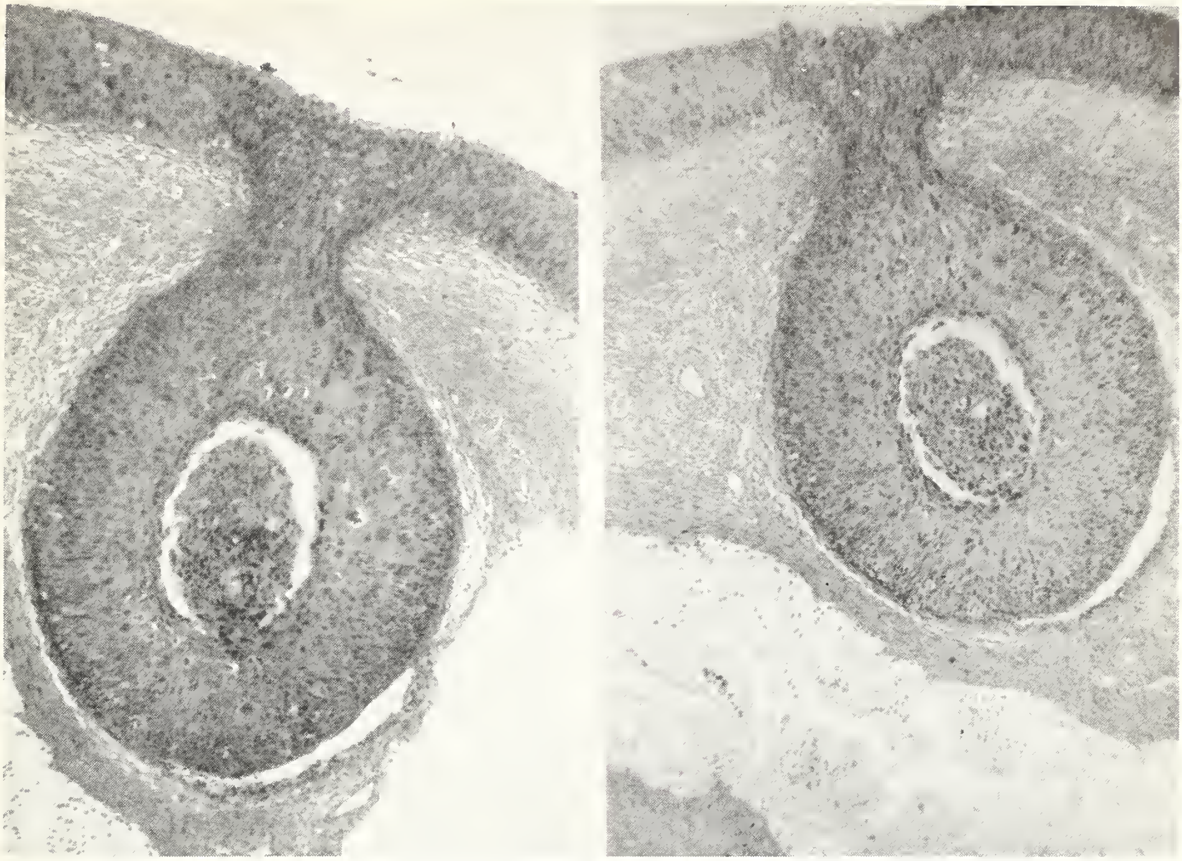

Fig. 5 Carcinoma-in-situ with gland invasion, paraffin section (left) and cryostat sections (right).

vaginal hysterectomy had other associated pathology, namely one or more of the following: menorrhagia, prolapse or urinary stress incontinence. Abdominal hysterectomy was elected for two patients, and one patient with invasive carcinoma had a radical hysterectomy with bilateral ilio-femoro-hypogastric node dissection. The other patient with invasive cancer had intracavity Cobalt 60 therapy via a Ter-Pogossian applicator (she was five feet-two inches tall and weighed 226 pounds).

Since using this approach, we are removing the uterus vaginally more often than before. For carcinoma in situ, 1 cm of vaginal cuff is removed along with the uterus and for microinvasive disease, the cuff is 2 cm. The uterus is sounded before admission to the hospital and a Ter-Pogossian applicator suitably loaded with Cobalt 60 sources is available at the time of each biopsy.

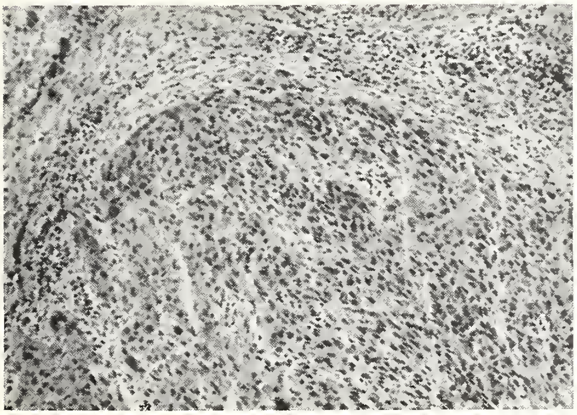

Fig. 6 Invasive carcinoma.

TABLE 1

CRYOSTAT DIAGNOSIS BY CYTOLOGY CLASS

Class	*No.*	*Metaplasia*	*Dysplasia*	*Carcinoma in situ*	*Carcinoma in situ & Micro-invasion*	*Invasive Carcinoma*	*Other*
IIR	5	2	3			1	
III	24	2	6	13	2		1*
IV	9		2	5	1	1	

* Adenomatous endometrial hyperplasia.

TABLE 2

TREATMENT BASED ON CRYOSTAT SECTION DIAGNOSIS

Diagnosis	*No.*	*D&C and Coniza-tion*	*Vaginal Hyster-ectomy*	*Vaginal Hyster-ectomy With Repairs*	*Abdominal Hyster-ectomy*	*Radical Hyster-ectomy*	*Radia-tion*
Metaplasia	4	3		1			
Dysplasia	11	8	2	1			
Carcinoma in situ	18	1	10	5	2		
Carcinoma in situ with micro-invasion	3		3				
Invasive cancer of cervix	2					1	1
Adenomatous endometrial hyperplasia	1	1					

The most common histopathologic diagnosis (60%) was carcinoma in situ of the cervix. There were 21 such cases, three with microinvasion. The frequency of this lesion in cases with suspicious cytology and the curability in most cases by immediate vaginal hysterectomy are strong arguments for cryostat section. Treatment of the 39 cases is summarized in Table 2.

ADVANTAGES

Immediate hysterectomy, when indicated, results in a lower morbidity[3] than the delayed operation. In Table 3, the morbidity and hospital stay in the 25 hysterectomies done immediately is compared to that in 18 cases in which hysterectomy was delayed from two days to six weeks. A temperature of 100.2 F (37.9 C) or greater for two successive postoperative days was reason for inclusion as morbid. There was one pelvic abscess in the delayed group, but none in the immediate group.

TABLE 3

POSTOPERATIVE COURSE IN IMMEDIATE VERSUS DELAYED HYSTERECTOMY (AFTER CERVICAL RING BIOPSY)

	No.	*No. Morbid*	*Average Hospital Stay (Days)*
Immediate hysterectomy (after cryostat-cone)			
Vaginal	15	5	6.5
Vaginal & repairs	7	2	7.4
Abdominal	3	1	9.3
	24	8 (33%)	7.4
Delayed hysterectomy (after paraffin section)			
Vaginal	1	1	11.0
Vaginal & repairs	4	2	11.5
Abdominal	13	6	11.5
	18	9	11.3

The most striking advantage of the method is the shorter hospital stay (7.4 days versus 11.3 days). The anxiety of the patient caused by delayed diagnosis or delayed treatment or both is eliminated. Obviously, the cervices which were coned and subsequently removed by hysterectomy did not hemorrhage in the postoperative period.

The shortened hospital stay and single trip to the operating room frees beds sooner for acutely ill patients and saves the patient or his insurer or both significant amounts of money. The elimination of the second anesthetic is a medical and financial advantage.

All patients in this series are living and well and cytologically free of cancer. *In no case would we have treated the patient differently had we waited for the paraffin sections.*

In no case, so far, has the diagnosis been upgraded or downgraded. This is undoubtedly due to the small number of cases and the fact that the sections were all read by the same pathologist. We expect to have to revise or postpone an occasional diagnosis as the number of patients increases.

We also are aware that if the sections had been sent to several pathologists, differences in diagnoses may have been recorded. The important fact, however, is that, *to the best of our knowledge, no patient has been under-treated.*

SUMMARY

Experience with a small series of cone-cryostat cervical biopsies (39 cases) with *immediate* definitive treatment carried out in a small general hospital (250 beds) is described. Fa-

(Continued on page 42)

HARRY DARROW BROWN, Ph.D., ***Columbia***

Chemical Measurements in the Detection of Cancer

A Review

The increasing prominence of cancer as a cause of death has emphasized the necessity of prevention and early recognition of neoplastic disease. The possibility that chemical measurements may be devised which represent adaptation of presently-used, effective physical observation methods exists. Hence, the goal of a cancer-detection program based on high-speed chemical and physical measurements and capable of superior results seems to be modest and within the bounds of reasonable expectation. Dr. Brown is from the Section of Biochemistry, Ellis Fischel State Cancer Hospital and Cancer Research Center. This article originally was submitted for the Ellis Fischel State Cancer Hospital Special Issue of Missouri Medicine in December, 1969 and represents an extension of the scientific section of that issue.

Increasing prominence of cancer as a cause of death in the last decade has resulted in emphasis upon prevention and early recognition of neoplastic disease. Although supposed preventive measures have been widely publicized, such as changes in cigarette consumption, there is no way in which the effect can be predicted. For the more immediate future, because time of detection appears to correlate with successful therapy, we must expect that mass screening of asymptomatic individuals will see extensive implementation. Early recognition of the disease, presumably at a point at which high cure rates can be obtained, appears to be the avenue most likely to be followed.

The ideal method for screening is, of course, a nondestructive examination capable of being adapted to a routine which will identify individuals with early cancer. The assumption is made that all cancer includes a stage—occupying a definite period of time—during which it is localized within a single organ. It is at this primary focal stage that detection (by presumption) would be of greatest value in altering the statistical morbidity of the disease. Since *the principal medical tool* presently available to us, physical diagnosis, is unsupportably expensive when applied to a large population segment, the development of an effective program requires the introduction of new measurement parameters which are not only appropriate-in-cost but effective at early periods in the ontogeny of the disease.

The cost of neoplasia upon the society is so great that even a modest reduction of the statistical probability of death from cancer would be an economic benefit sufficient to offset the cost of routine detection procedures. Cook[1] has considered the forms of neoplastic disease to be cost-item entities in order to provide nonsubjective guide lines to cost limits which are applicable to development of detection procedures. This equation of cancer with cost-to-the-society has never been systematically applied. Similar formulae, however, have been used in the construction of several states' budgets for programs designed to accomplish early recognition of genetically-determined mental defect. However emotionally unsatisfying it may be to equate human medical needs with dollar-values, demonstration that scholarship in medical-science makes a monetary return greater than its cost is a self-justification that those who support our work have the right to expect: in cancer-programs, the economic balance heavily favors development of incisive detection procedures.

It is, of course, essential that the procedures used in cancer detection be reliable as well as nondestructive in order to avoid the pitfalls of misdirected diagnoses and therapeutic arborizations. Errors which result from inherent inaccuracy in detection procedure can negate the value which is expected to result from early diagnosis. Hence, the body of methodology for early recognition of neoplastic disease, if it is to meet the economic necessity, must be evaluated in terms of effectiveness and reliability. Criteria for acceptability are as follows:

1. *Cost* should be low, preferably below the true economic value of the detection of the particular type of cancer. Simplicity and minor "patient" involvement, i.e., small or no discomfort to patient, are inherent in the low cost-requirement.
2. *Reliability* must be high in order to avoid false positives.
3. *Sensitivity* also must be high in order to avoid false negatives and to protect *productivity* of the screening.

A number of procedures provide chemical parameters showing correlation with one or more specific cancers. Few tests have been used extensively enough to allow evaluation in terms of the criteria stated above and must be intensively and carefully studied in order to allow us to know their possible place in low-cost screening. Methodology generally has involved blood or urine as primary biological material. Collection procedures originally designed to provide tissues for cytologic study also have been modified to serve in obtaining test matter with more clearly defined sites-of-origin. An entirely different sort of approach to detection measurements, made without tissue sampling by the use of electromagnetic radiation responses of tissue or by the use of exchanged gas analysis and by other high speed, automatable and even remote techniques, is certainly in concert with our space-exploration age and with the economic need.

While the physical basis for such development must be assumed to exist, the chemical and physical technology is probably not immediately equal to the task. It is hardly novel to add that biology, which in the last 20 years of scientific opulence has managed to discard some of the shackles of the 19th century, is barely in a position to greet the "space age." To the author's knowledge, few significant development efforts in this area exist, though one may credit adaptations of techniques such as thermography, sound-wave reflectance measurement (ultrasonography) and roentgenology as reasonable beginnings. While these ideal approaches have been much discussed in the club rooms, they have, in toto, seen little scientific study. Hence, this sort of concept does not appear likely to serve an immediate- or short-term need and we shall think in the construction of this review of methods which are built upon more conventional samplings of biological fluids and tissues.

Enzyme Measurements

Enzyme activities in serum and urine are routinely assayed as an aid to the diagnosis of many diseases. The procedures which are frequently automated have proven under better conditions to provide reliable supporting data in the clinical diagnosis of myocardial infarction, pulmonary infarction, acute hepatitis and many other diseases. The use of enzyme assays in the diagnosis of cancer has been reviewed recently by Pugh and Brown.[2]

This type of measurement offers the most extensive list of applicable chemical procedures for recognition of early neoplastic disease, even though commission to practice is not routine in the sense that other disease categories are recognized by enzyme value changes.

We know that several tissue enzymes are altered markedly during the development of some types of neoplastic disease and some of these alterations are reflected by changes in those enzymes which escape from the tissue into the serum, urine or other body fluid. Although the list of enzymes in tissue fluids is extensive, relatively few have been studied with respect to abnormality related to neoplasia. Further, the methods that have been conventionally used are not exceptional in ability to recognize population aberrancies which may reside in changed chemical structure of the enzyme itself or changes in the kinetic pattern of its catalytic activity. A promising beginning, however, has involved efforts to distinguish isozymes which may have quite different tissue and subcell organelle origins from one another.

What is presently established is that a diverse array of urinary and blood enzymes are altered in activity level in cancer patients. Amylases, catalases, esterases, phosphatase and proteases have been related to specific or generalized neoplasms. Although no single enzyme assay shows a sufficiently high correlation with the disease to offer an "absolute" diagnostic test for cancer, there are several assays which provide information useful as an adjunct in the diagnosis of and establishment of the location of a cancerous growth.

Discussion of the elucidation of relationship between lactate dehydrogenase (LDH) activities and neoplastic disease might serve best to illustrate the nature of the present trend in the use of enzyme assays as diagnostic aids. The familiar five electrophoretically distinguishable bands of LDH have been studied with relation to many diseases and determination of the isozymes is among the established armamentarium of many clinical laboratories (Fig. 1).[2] The total enzyme activity level is elevated in serum of patients with acute leukemia and untreated chronic granulocytic leukemia as well as in several other types of neoplastic diseases. However, the degree of elevation seems to reflect the extent of the malignant process rather than the specificity for certain neoplasms. Changes in individual isozyme's activity, however, have been more directly useful in correlations with specific cancers. In various conditions, elevations have been noted in isozymes II, III and IV, particularly when an elevated total LDH is recorded. Isozyme V has been of particular interest because its activity is high in the serum of many patients with liver metastases.

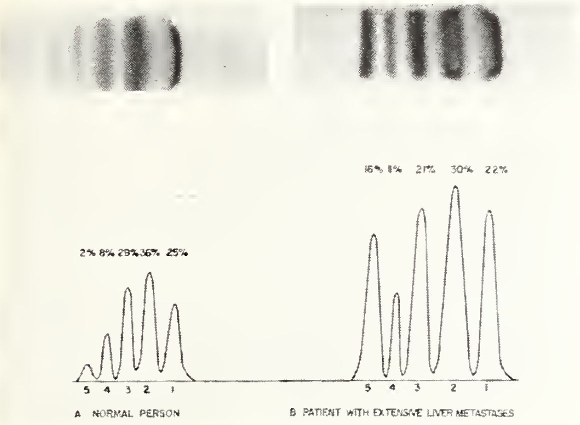

Fig. 1 Lactic dehydrogenase (LDH) isoenzymes.[2]

We have observed in animal experimentation that isozyme V is derived from a molecular population which is bound to a subcellular structure rather than from the cell cytoplasm. Thus, we have offered the thesis that the appearance of abnormal increase of isozyme V relates to an internal structural derangement of cancer cells. Relationship of the isozymes to particular disease manifestations represents a burgeoning literature in which the higher resolutoin to be obtained from consideration of specific chemical entities rather than if a general enzymatic activity has been used for the first time.

Immunologic Methods

The basic rationale that has provided impetus to development of an immunologic procedure for early diagnosis of cancer is conceptually attractive and certainly cogent: Since the tumor has been demonstrated to be in many ways chemically different from the endogenous tissue, there is an implication that an immunologic reaction to it should be expected.

This literature was reviewed by Southam in 1960,[3] and there has been a series of interesting studies since, some of which appear to provide a substantial base for detection procedures. A representative series of experiments is that reported by Weiland and associates.[4] They subjected extracts of normal, inflamed and malignant pancreas to electroimmunodiffusion against randomly-selected normal sera and against sera from patients with pancreatitis, diabetes, carcinoma of the pancreas and other malignancies and autoimmune disorders. Seven of their eight patients with carcinoma of the pancreas showed positive results. False positives noted in other conditions could be prevented by appropriate modifications of the technique.

The serological test known as the Rand or 3-D test has been accorded considerable public notice. Other procedures which have been less publicized also point to the possibility of a specific antigen associable with given forms of neoplastic disease. Fig. 2 is a graphic representation of an immune response to neoplastic tissue. An attempt at greater selectivity was described by Makari,[5] who reported that the mitochondrial fraction of carcinoma tissue was more useful as a cancer specific antigen than was the total homogenate. This selection and purification of the biological material may point the way to the specificity and reliability which is prerequisite to the development of cancer specific antigens useful in immunologic screening for cancer detection.

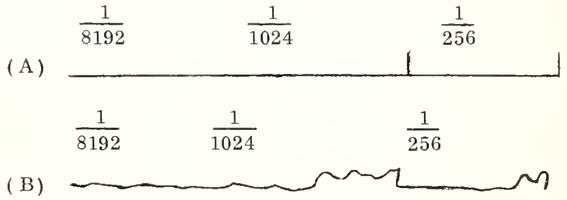

Fig. 2 Comparison of normal lung supernatant with (A) nonimmunized and (B) carcinoma-immunized guinea pig uterine segments. The normal lung supernatant released no reaction when added to a uterine segment from the nonimmuninized guinea pig but released a marked reaction with an equivalent segment from the immunized animal. (Redrawn with permission from Makari, J. G. [1962] Ann. N. Y. Acad. Sci. 101:274.)

Radio Label Tracings

Because of the ease with which radio labels can be followed, they have represented to some minds a tool of promise for possible application to cancer detection. However, until the time comes when we can demonstrate with reasonable surety that hot chemicals are, in fact, tolerable to a greater extent than we should now predict, use of ^{32}P in screening procedures of asymptomatic populations appears to be properly excluded.

For differential techniques in prescreened patients, however, radio tracing may be of more than academic interest. ^{32}P has been used experimentally upon the rationale that phospholipid turnover differs in neoplastic tissue compared with normal. It has been reported that ^{32}P was retained in greater concentration in tumors than in other tissues. Detection has been accomplished by use of various scanning techniques, and the method has been extended on an experimental basis to a variety of sites. Other radioactive elements, particularly ^{131}I, also are of possible utility. Obviously, where presumptive evidence for the existence of a tumor exists, the hazards associated with placing radioactive materials in the body may be balanced by the value derived from localization of the malignancy. The obvious utility of radioactive labels in these studies suggests the possibility that nonradioactive isotopic labeling may have similar utility. Such isotopes, of course, are more difficult (expensive) to detect than are radioactive nuclides. They may, nonetheless, prove to be effective and nondestructive and, therefore, to hold value in asymptomatic screening procedures.

Steroid Determinations

Judged by the extent of the scientific literature, the pattern of distribution of urinary steroids, particularly the 17-keto compounds, has been suggested more frequently and more extensively applied experimentally than any category of technique, except enzyme assays, to the problem of cancer detection. Several reports of elevated levels of urinary estrogens have been made relative to carcinoma of the breast, and estrogen metabolism has been found abnormal in carcinoma patients after the execution of steroid loading procedures. Urinary estrone, estrodiole and estriole are all different in cervical cancer patients from normal and estriole/total-estrogen ratios differed in other cancer types.

Not only have there been numerous reports of differences in total and individual keto steroid levels in cancerous subjects, as compared with normals and metabolic differences in handling following loading procedures, but the nature and level of intermediates also has gained attention. Siperstein[6] has described differences in cholesterol metabolism as measurable in terms of relative levels of desmosterol versus cholesterol in individuals after ingestion of the inhibitor triamcinolone. (Triamcinolone in normal individuals inhibit the metabolic transformation of desmosterol to cholesterol. The consequent buildup of desmosterol in serum apparently is not as great in tumor-bearing subjects as in normals.)

Steroid determinations, many investigators believe, lend promise of utility in detection. Atkins[7] has gone so far as to suggest that "it would appear highly probable that a group of women with greatly enhanced susceptibility to carcinoma of the breast can be distinguished before any lesion becomes apparent." Thus, predictive profiles may be constructed using steroid values as the reference. However, a number of difficulties face us; the most imposing is that the useful screen for the steroids is not (with present technology) economic. Chemical methods do exist, which for some steroids offer a reasonable reliability and sensitivity, but, in a general way, chromatographic separations following chemical extractions are necessary. These procedures, expensive enough in themselves, require corroboration by mass spectroscopy. This requirement not only adds expense in itself but may necessitate elaborate computer processing for meaningful interpretation. Nonetheless, steroid determinations, perhaps ultimately by low cost methods, may become an essential part of testing large populations.

Metal Ions

Variation in inorganic constituents in serum of tumor-bearing individuals is well documented in the literature. Copper, zinc, magnesium and calcium relationships appear to be of possible use in detection procedures. Low values of sodium and of potassium, too, have been associated with various tumors as would be predicted by the steroid abnormalities which we have already discussed. Metal determinations represent an attractive possibility in screening because atomic absorption techniques, which are now readily available, can be automated and handled when the process is up-scaled to mass

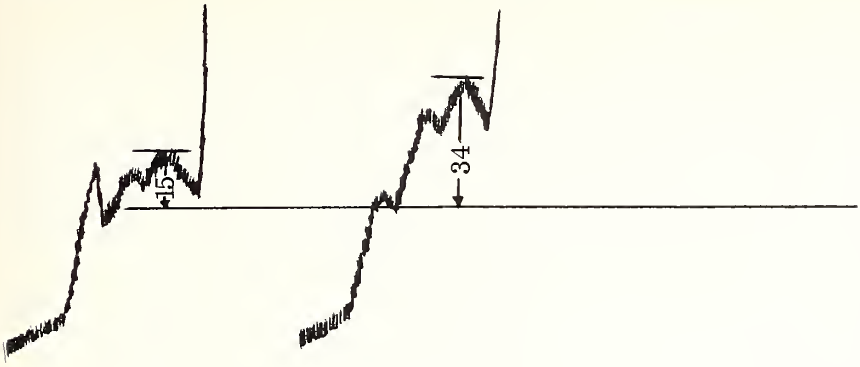

Fig. 3 Polarographic comparison of normal and cancerous serum after deproteinization with sulfosalicylic acid indicating differences in total sulfohydryl groups. Redrawn with permission from Brenzina, M. and Zuman, P.: Catalytic Waves in Cobalt Solutions. Polarography in Med., Biochem., and Phar. XXX:635, 1958.

production levels at a very low cost. Even should highest-sensitivity prove to be necessary for some measurements, neutron activation represents no great economic obstacle since sources and even the spectral instrumentation are available for other purposes, usually with considerable "down time" that could be appropriately and economically put to detection services.

Other Organic Procedures

"Finger printing" by pyrolysis of human blood also has been suggested as a detection procedure in automated setup. Serum is decomposed pyrolytically and the products are chromatographed in a gas liquid column. It presents interesting possibilities and, although there is apparent indication of differences in leukemic blood as compared with normal blood, the effectiveness and, particularly, the reliability of the technology remains to be demonstrated.

Differences in protein sulfhydryl group availability may reflect differences in serum enzymes in normal blood as compared with that from cancer (Fig. 3).[8] Use of this broad spectrum criterion offers interesting economies if differences which have been described in limited samplings prove verifiable in larger populations. Specific chemical entities have been shown to offer isolated but useful criteria. An inhibitor of the enzyme hyaluronidase has been reported by Fiszer-Szafarz[9] to be associable with certain neoplastic disease. Work in this laboratory has been directed at measurement of this material, using a thermometric method (Fig. 4).[10]

Chemical Adaptation of Physical Methods

The possibility that chemical measurements may be devised which represent adaptation of presently used, effective physical observation methods certainly exists. Chromosomal abnormalities clearly should be reflected in nucleic acid differences. Histological techniques involving recognizable morphological differences in cells lend themselves to the development of chemistries analogous to those used in the staining procedures. This approach has extensive ramifications, and the development of additional useful lines almost implies success if sufficient development effort is made.

It is difficult or impossible to predict with precision the outcome of research. However, the goal of a cancer-detection package, based largely on high-speed chemical and physical measurements and capable of results which are superior to those obtained by the present methods of physical diagnosis, seems to be modest and

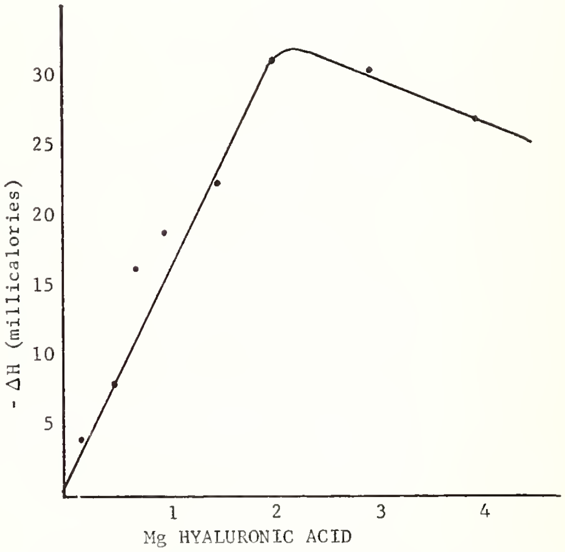

Fig. 4 A specific inhibitor of the enzyme hyaluronidase has been associated with neoplastic disease. (This material has been assayed by microcalorimetric methods illustrated above by the data of Brown *et al* (1968). Dual-Differential Calorimetry: An Analytic Technique for Enzyme-Catalyzed Reactions. I.E.E.E. Record [Inst. Elec. Electr. Eng. Public. 68C 17-Reg-3]).

within the bounds of reasonable expectation, especially if sufficient, careful and intelligent effort is rigorously directed. Many of the program requirements appear to be clear-cut and achievable. We might suggest, however, that, as in many other areas of development, the first consideration is whether or not there exists potential sponsorship for an effort of a magnitude which will offer reasonable promise of success within an acceptable period of time. Society, indeed, if it weighs the goal to be of sufficient value, can expect to succeed in the undertaking. It is my conviction that we may look with considerable enthusiasm upon the present scientific literature of cancer detection as having laid a proper and broad base for building an appropriate "machine."

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Cone-Cryostat Cervical Biopsy

(Continued from page 36)

vorable experience with the method convinces us that it is medically sound, advantageous to the patient and practical for use in the smaller institution.

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New Name for Chicago Medical Society Meeting

The name of the Chicago Medical Society's *Clinical Conference* has been changed to the *Midwest Clinical Conference* of the Chicago Medical Society (page 19.) Officers of the Society decided the latter name is more appropriate since many physicians from towns and cities other than Chicago attend the meeting each year.

GEORGE C. WEE, M.D. *and* **GEORGE L. TUCKER, M.D.,** ***St. Louis***

An Improved Procedure for the Surgical Correction of Hammer Toe

The authors describe a simplified procedure in the surgical correction of hammer toe which was used in a series of 20 cases with excellent results. They suggest that the absence of complications and the short postoperative morbidity make it the operative method of choice. Dr. Wee is Chief of Surgical Service at Jefferson Barracks Veterans Administration Hospital and Instructor in Surgery at Washington University School of Medicine. Dr. Tucker is Consultant in Surgery at the Hospital and Assistant Professor in Clinical Surgery at the School of Medicine.

Hammer toe is the most common congenital disorder of the foot. This condition usually involves the second toe, although the other toes may be involved simultaneously. In this condition, the proximal interphalangeal joint is elevated or dorsi-flexed, causing the formation of a painful keratosis or callus with an underlying bursa. Frequently, the painful callus makes walking a torture. In mild cases, the pressure of the dorsi-flexed interphalangeal joint against the shoe can be relieved by wearing a shoe with a broad or high toe and by using a protective material, such as a moleskin, over the joint. However, many patients, women in particular, object to wearing the kind of shoe that will accommodate a severely flexed toe and, therefore, surgical correction is indicated in most instances.

A number of surgical procedures have been devised for correction of hammer toe. One of them is the method of Lapidus,[1] who used subcutaneous plantar tenotomy and capsulotomy and shaving the head of the proximal phalanx. The other is that of Selig,[2] who advised resection of the head of the proximal phalanx and base of the second phalanx and the insertion of a Kirschner wire across the joint space for four to six weeks for the formation of a bony union. Some procedures even advocate the amputation of the involved toe. We have used the procedure described by Schubert[3] and Du Vries[4] in a series of 20 cases with excellent results and little morbidity.

The procedure is as follows with instruments shown in Fig. 1:

1. 2 cc to 3 cc of Carbocaine® is infiltrated at the base of the toe. No tourniquet is used.
2. After sterile preparation and draping, a vertical incision is made on the dorsum of the toe extending over the proximal and the middle phalanges (Fig. 2).
3. At the interphalangeal joint, the extensor tendon is cut transversely and the joint capsule is cut all around. A phalangeal forceps holds the head of the proximal phalanx, and about 1 cm of it is excised with bone cutting forceps (Fig. 3).
4. The proximal cut tendon and joint capsule are sutured to the distal segment with interrupted 3-0 plain catgut.
5. The skin is closed loosely with simple interrupted 4-0 silk and the toe is dressed.

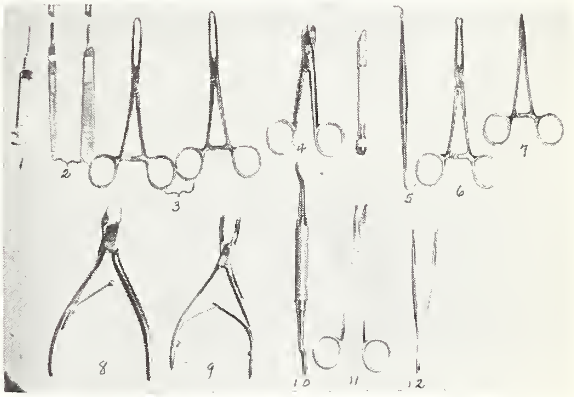

Fig. 1 Instruments used in this procedure are (1) 2½ cc syringe with 1¼-inch and #25 gauge needle, (2) #7 or #3 knife handle with #15 blade, (3) #4 and #5 Allis clamps with small tooth, (4) dental collar and crown scissors, (5) retractor, (6) phalangeal forceps, (7) small needle holder, (8) bone cutting forceps, (9) bone rongeur, (10) bone rasp, (11) dissecting scissors and (12) Adson forceps.

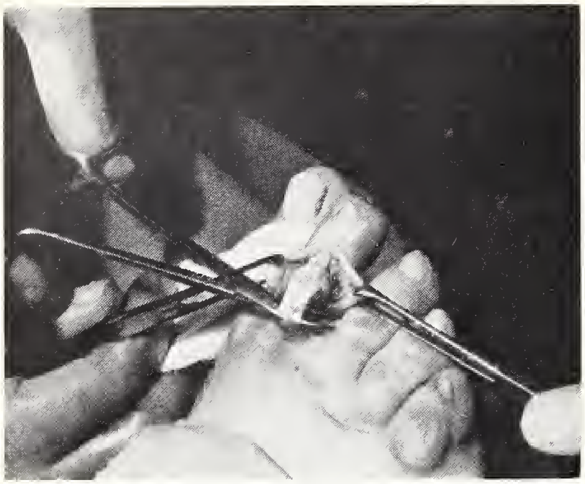

Fig. 2 Freeing the extensor tendon from the proximal phalanx and interphalangeal joint through a vertical skin incision.

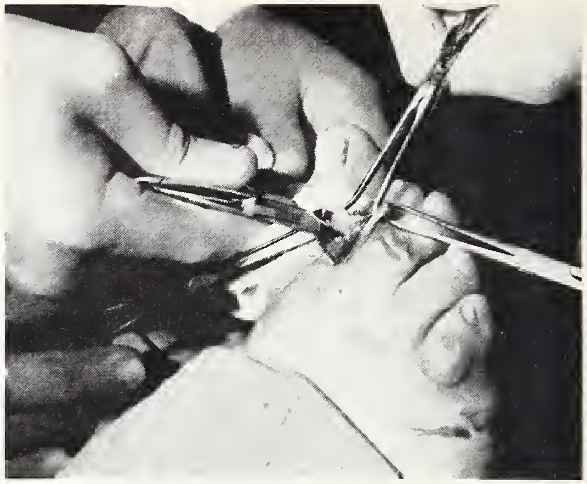

Fig. 3 Excision of the head of the proximal phalanx after cutting the extensor tendon and joint capsule.

6. The patient may walk on the same day with a "cut-off" shoe or a Reese Orthopedic Shoe®.

DISCUSSION

The presence of a "flail toe" is not seen following this procedure. With the removal of the head of the proximal phalanx, the tissue of the joint area heals by fibrosis and stubbing of the operated toe does not take place. There is none of the rigidity of the interphalangeal joint seen in Selig's procedure.

CONCLUSION

A simplified procedure in the surgical correction of hammer toe by excising the head of the proximal phalanx and cutting and suturing the extensor tendon and joint capsule is presented. The absence of complications and the short postoperative morbidity make it the operative method of choice.

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AMA and U. S. Seek More MDs for Viet Nam

Because physicians are urgently needed, the U. S. Agency for International Development has asked the AMA to continue administering the Volunteer Physicians for Viet Nam program for another two years.

The basic quota of volunteer physicians in Viet Nam is 32 at any one time. To meet this commitment, the program will require at least 400 more volunteers between now and June 1971. Most urgently needed are general practitioners, general surgeons, internists, orthopedic surgeons, ophthalmologists, pediatricians and preventive medicine specialists. The program provides round-the-world transportation, $10 a day living expenses and housing in Viet Nam where the volunteer physicians provide medical care to the civilian population. The "tour of duty" is 60 days.

For more information and applications for participation in the program, write the Volunteer Physicians for Viet Nam, AMA, 535 North Dearborn St., Chicago, Ill. 60610.

THOMAS W. HOBAN, M.S.P.H. *and* **HARRY M. DAWDY, M.S.P.H.,**
Jefferson City *and* **HENRY M. PARRISH, M.D.,** ***Columbia***

Organization of Voluntary Health Agencies In Missouri

A Study

Increased governmental involvement in health care has resulted in new concern for the changing role of voluntary health agencies. This study provides information about the organizational structure and activities of voluntary health agencies in Missouri and is believed to be the first in-depth study of these agencies in a particular state. Mr. Hoban and Mr. Dawdy are from the American Cancer Society-Missouri Division, Inc. Dr. Parrish was a professor in the Department of Community Health and Medical Practice, University of Missouri School of Medicine at the time this paper was written. He now is Associate Dean of the University of South Dakota School of Medicine in Vermillion, S. D.

THE PROTOTYPE of voluntary health organizations in this country is the American Red Cross which was founded in 1881. The National Tuberculosis Association, the Christmas Seal Agency, was established in 1904. Toward the end of the 19th century, people were becoming less fatalistic about premature death from disease. They began to feel that man might take an active part in preventing and controlling many of the ancient enemies of health. This belief that something could be done about disease had an important bearing on the attitudes of founders of the earliest national voluntary health agencies.[1] The growth of voluntary health organizations from their humble beginnings has been dramatic. A current survey of the 21 national organizations made by the American Association of Fund Raising Council showed that their income was $209.5 million.[2]

Gunn and Platt[3] published the first in-depth study of voluntary health agencies in 1945. In the Gunn-Platt report were recommendations for revitalizing local voluntary health agencies by means of searching self-analysis, with occasional help of expert counsel, of present goals, activities, functions, methods and relationships; concentrating on the task of strengthening executive and board leadership; and effecting coordinated health planning.

Several recent national reports have indicated that voluntary health agencies have a public responsibility to report their activities.[4, 5] The increased governmental health and medical care programs are serving people who formerly were served by voluntary health agencies. Thus, voluntary agencies must innovate and fulfill other community needs.[6–8]

A review of the available medical literature showed that there are no previously published studies of voluntary health agencies in a state. The purpose of this study is to collect information about the organizational structure of voluntary health agencies in Missouri. We believe this comparative information will prove useful to agency executives, board members (many of whom are physicians) and volunteers.

MATERIALS AND METHODS

In this survey of the organization and administration of voluntary health agencies in Missouri, the following eight agencies were selected for detailed study: American Cancer Society, Missouri Division, Inc.; United Cerebral Palsy of Missouri; Missouri Heart Association, Inc.; Missouri Society for Crippled Children and Adults; The Missouri Association for Mental Health, Inc.; National Multiple Sclerosis Society; Muscular Dystrophy Associations of America, Inc.; and Missouri Tuberculosis and Respiratory Disease Association. The reasons for selecting these particular voluntary health agencies were that each of these agencies ranks in the top ten voluntary health agencies in Missouri (based on annual income); each agency is affiliated with a national agency which, in turn, is a member of the National Health Council; each agency has one or more administrative offices in Missouri; and each agency has an executive director. Therefore, the agencies studied are reasonably representative of large, voluntary health agencies in Missouri in that eight of the ten agencies were in this classification.

A questionnaire and a cover letter explaining the purpose of the study were mailed to the executive director of each agency. It was explained to these executives that no previous study had been made of voluntary health agencies in Missouri. Within five days after the letter and questionnaire were mailed, each executive director was contacted by means of a personal telephone call. At that time, the purposes of the study were explained in greater detail and an appointment was made for one of us (T.W.H.) to interview the executive director of the agency.

The structured interviews were conducted in the offices of the agency directors. In general, the interviews lasted approximately 60 to 90 minutes. In about one half of the interviews, the questionnaire had been completed by the agency director or his staff before the meeting. Each question was reviewed and the agency directors were given ample opportunity to discuss the findings related to their agencies.

The schedule used for interviewing the agency directors was composed of questions designed to elicit the following information about the following areas: the organization of the agency on the national, state and local levels; the number and educational background of the staff members; the source, amount and use of the budget for program activities; the composition of the board of directors and special committees; and other information about the internal and external relationships of the agency.

Data recorded on the individual agency schedules were summarized by means of hand tabulation on a master sheet. In order to maintain confidentiality, a table of random letters was used to assign each agency a code letter, i.e., A, B, C, etc.

Results

General Organizational Information. Of the eight voluntary health agencies in Missouri, two were organized prior to 1930, two were organized during the 1940's and four were organized after 1950. With two exceptions, all of the agencies are incorporated in Missouri under the nonprofit corporation law of the state of Missouri. The other two agencies are incorporated in other states as nonprofit organizations.

The state of Missouri was described as the geographical area of operation by all of the agencies. To accomplish their respective responsibilities, local groups, which generally are described as units or chapters, were utilized. The number of local chapters utilized by the respective agencies were as follows: agency A = 109 chapters; agency B = 16 chapters; C = 7 chapters; D = 18 chapters; E = 2 chapters; F = 14 chapters; G = 114 chapters; and H = 5 chapters. Where smaller numbers of chapters were indicated, they usually represent multi-county units. One agency operated from two offices: a St. Louis office, which is responsible for the eastern one half of the state, and a Kansas City office which is responsible for the western one half of Missouri. Thus, the eight voluntary health agencies in this study have a total of 285 local chapters or an average of 35.6 local chapters per agency.

Number and Type of Personnel. Table 1 shows the number of professional and clerical staff members employed by selected voluntary agencies in Missouri as of April 1, 1969. The number of personnel working for the eight agencies ranged from six to 43, with an average

TABLE 1

NUMBER OF STAFF MEMBERS EMPLOYED BY SELECTED VOLUNTARY HEALTH AGENCIES IN MISSOURI, 1969

	Number of Staff Members Employed					
	STATE OFFICES		LOCAL OFFICES		*Total*	
Agency Code	Professional	Clerical	Professional	Clerical	PROFESSIONAL	CLERICAL
A	5	1	9	20	14	21
B	6	4	7	9	13	13
C	4	6	0	0	4	6
D	2	1	8	6	10	7
E	3	3	0	0	3	3
F	1	2	7	4	8	6
G	4	7	19	13	23	20
H	4	2	20	10	24	12
Total	29	26	70	62	99	88

of 23.4 employees per agency. Of 187 people employed by these eight agencies, 55 (29%) work in state offices and 132 (71%) work in local chapter offices. Of 55 people working in the state offices of these agencies, 29 (53%) were professional workers and 26 (47%) were clerical workers. The same percentages of professional and clerical workers were found for the 132 employees of local chapter offices.

The educational background of professional staff members employed by the eight voluntary health agencies in Missouri is shown in Table 2.

TABLE 2

EDUCATIONAL BACKGROUND OF PROFESSIONAL STAFF MEMBERS EMPLOYED BY SELECTED VOLUNTARY HEALTH AGENCIES IN MISSOURI, 1969

Agency Code	*Educational Background of Staff Members* HIGH SCHOOL DIPLOMA	SOME COLLEGE TRAINING	COLLEGE GRADUATE	SOME GRADUATE WORK	MASTER'S DEGREE	*Total*
A	3	1	6	0	4	14
B	2	6	4	0	1	13
C	2	0	1	0	1	4
D	2	1	3	3	1	10
E	1	0	2	0	0	3
F	2	1	3	1	1	8
G	6	8	5	0	4	23
H	1	10	0	6	7	24
Total	19	27	24	10	19	99

Of interest is the fact that all of the professional staff members were at least high school graduates. Of the 99 professional staff members, 19% had a high school diploma, 27% had enrolled for some college work, 24% were college graduates or holders of baccalaureate degrees, 10% had enrolled for some graduate school course work and 19% had been awarded masters degrees. Personnel policies and practices have an influence on the type of people who are employed by an organization and on providing an opportunity for an employee to continue his education. Seven of the eight voluntary health agencies in Missouri stated that their national organizations sponsored in-service training. For the most part, these are short courses lasting from several days to several weeks. When asked, "Does your organization make provision for educational leave for advanced formal study," only two of the eight agencies responded affirmatively. Of these, one agency will provide advanced educational training and, also, provide the employee's salary. One agency will grant an educational leave of absence without salary.

Amount and Sources of Income. Table 3 shows the income in dollars reported by selected voluntary health agencies in Missouri from 1965 through 1968. Since fiscal information during three years of this period was not available for agency D, the $180,000 raised by this agency in 1968 was not used in calculating the totals for the agencies.

With two exceptions, each agency showed an increase in income from 1965 through 1968. Agency C reported a decrease from $227,000 in 1966 to $226,000 in 1967, and agency H reported a decrease from $442,591 in 1965 to $439,319 in 1966. Obviously, these decreases in income are small, although the particular agency may not consider a decrease in income insignificant in terms of its projected budget and programs. Of importance is the fact that the total income

TABLE 3

INCOME REPORTED BY SELECTED VOLUNTARY HEALTH AGENCIES IN MISSOURI FROM 1965 THROUGH 1968

Agency Code	*Income in Dollars Per Year* 1965	1966	1967	1968	*Total*
A	$ 490,824	$ 502,955	$ 521,331	$ 525,465	$ 2,040,575
B	567,066	593,544	658,000	707,500	2,526,110
C	220,500	227,000	226,000	231,000	904,500
D	—*	—*	—*	—†	—*
E	143,893	165,353	184,451	198,592	692,289
F	365,000	370,000	375,000	600,000	1,710,000
G	846,365	984,874	1,214,062	1,240,447	4,285,748
H	442,591	439,319	556,723	775,974	2,214,607
Total	$3,076,239	$3,283,045	$3,735,567	$4,278,978	$14,373,829

* Information about income for these years was not available.
† The $180,000 income for Agency D in 1968 was not used in calculating the totals for the row or the column.

TABLE 4

SOURCES OF INCOME FOR SELECTED VOLUNTARY HEALTH AGENCIES IN MISSOURI FOR THE FISCAL YEAR, 1968

Agency Code	Sources of Income UNITED FUND		INDEPENDENT CAMPAIGN		LEGACIES		OTHER SOURCES		Total	
A	——	(0.0)	525,465	(85.5)	5,833	(1.0)	82,992	(13.5)	614,290*	(100)
B	——	(0.0)	597,500	(84.4)	110,000	(15.6)	——	(0.0)	707,500	(100)
C	3,500	(1.5)	227,500	(98.5)	——	(0.0)	——	(0.0)	231,000	(100)
D	120,000	(66.7)	20,000	(11.1)	——	(0.0)	40,000	(22.2)	180,000	(100)
E	——	(0.0)	198,592	(100.0)	——	(0.0)	——	(0.0)	198,592	(100)
F	300,000	(50.0)	100,000	(16.7)	200,000	(33.3)	——	(0.0)	600,000	(100)
G	——	(0.0)	952,824	(76.8)	287,623	(23.2)	——	(0.0)	1,240,447	(100)
H	——	(0.0)	337,894	(43.6)	134,346	(17.3)	303,734	(39.1)	775,974	(100)
Total	423,500	(9.3)	2,959,775	(65.1)	737,802	(16.2)	426,726	(9.4)	4,547,803*	(100)

* The total incomes for Agency A and the grand total differ in Tables III and IV because legacies and other income were not included as income for Agency A in Table III.

from these seven voluntary health agencies in Missouri increased each year: in 1965, the total income was $3,076,239; in 1966, the total income was $3,283,045; in 1967, the total income was $3,735,567; and in 1968, the total income was $4,278,978.

Using the reported incomes for 1968, it is obvious that the sizes (based on income) of these agencies vary considerably. The range of income, including agency D, is from $180,000 (agency D) to $1,240,447 (agency G). Five of the eight voluntary health agencies in Missouri reported incomes in excess of $500,000 in 1968.

Table 4 lists the sources of income of eight voluntary health agencies in Missouri for the fiscal year, 1968. Only three agencies participated in the United Fund as a means of producing income, but the United Fund was the source of 50% or more of the income for two of these agencies. The major source of income for six agencies (including agency C which participated in the United Fund) was independent, fund-raising campaigns. Thus, the percentage of income from independent campaigns ranged from 11.1% for agency D to 100% for agency E. The average income produced in this manner was 65.1%. Legacies were a source of income for five of the eight agencies. The percentage of income from legacies ranged from 1% to 33.3%. The average income from legacies was 16.2%. Other sources of income, such as membership dues and special gifts, were important sources of income for three agencies for whom they provided 13.5%, 22.2% and 39.1% of the total income for the respective agencies. If one considers all eight agencies, then "other sources" provided only 9.4% of the total income. The majority (six out of eight) of the largest voluntary health agencies in Missouri continue to utilize independent fund raising campaigns as the major source of their income.

Distribution of Income. It is customary for state affiliates of national voluntary health agencies to share part of their income with the national office of the organization. Table 5 lists the percentage of the total income spent in the state and that sent to the national office by eight voluntary health agencies in Missouri for the fiscal year, 1968. The percentage of income spent in Missouri ranged from 25% to 95%. The average percentage of income spent in the state was 70.4%. On the other hand, the percentage of income sent to the national office of the or-

TABLE 5

PERCENTAGE OF FUNDS SPENT ON NATIONAL AND LOCAL LEVELS BY SELECTED VOLUNTARY HEALTH AGENCIES IN MISSOURI DURING 1968

Agency Code	Percentage of Funds USED IN MISSOURI %	SENT TO NATIONAL ORGANIZATION %	Total %
A	93	7	100
B	75	25	100
C	25	75	100
D	80	20	100
E	60	40	100
F	75	25	100
G	60	40	100
H	95	5	100

TABLE 6

% OF BUDGET SPENT IN STATE ACCORDING TO PROGRAM ACTIVITIES BY SELECTED VOLUNTARY HEALTH AGENCIES IN MISSOURI DURING 1968

	% of Budget Spent in Various Program Activities								
Agency Code	RESEARCH	PUB. EDUC.	PROF. EDUC.	PATIENT SERVICE	COMM. SERV.	FUND RAISING	MANAGEMENT & GENERAL	*Total** $	%
A	(7.6)	(14.8)	(2.7)	(3.0)	(37.8)	(27.4)	(6.7)	$ 516,528	(100)
B	(0.0)	(20.0)	(22.3)	(0.0)	(17.7)	(24.4)	(15.6)	415,413	(100)
C	(0.0)	(5.7)	(1.4)	(47.4)	(6.6)	(37)	(1.9)	105,500	(100)
D	(0.0)	(30.0)	(10.0)	(30.0)	(10.0)	(5.0)	(15.0)	144,000	(100)
E	(4.4)	(8.1)	(0.6)	(41.7)	(9.2)	(25.7)	(10.3)	123,658	(100)
F	(0.0)	(4.8)	(1.0)	(71.2)	(4.8)	(2.8)	(15.4)	41,288	(100)
G	(3.3)	(34.3)	(9.5)	(17.6)	(8.0)	(19.7)	(7.6)	683,527	(100)
H	(0.0)	(0.7)	(0.7)	(64.5)	(3.2)	(22.5)	(8.4)	523,253	(100)
Total	(2.6)	(18)	(7.5)	(25.4)	(14.6)	(22.6)	(9.3)	$2,553,167	(100)

* The total budgets for these voluntary health agencies represent the sum left to spend in Missouri after sending a percentage of the total income to the national organization.

ganization ranged from 5% to 75%. The average percent of income sent to national offices was 29.6%.

All eight of the agencies utilize the uniform accounting and financial reporting procedures as recommended by the National Health Council. This standard method for reporting agency income and expenditures is based on functional program allocations as follows: research, public education, professional education, patient services, community services, fund raising and management and general.

Table 6 shows the percent of budget spent in the state (Missouri) according to program activities by eight voluntary health agencies in Missouri during 1968. The percentage of the budget spent on research ranged from zero to 7.6%. The average percentage spent on research in Missouri was 2.6%. The percentage of the budget spent on public education in Missouri ranged from 0.7% to 34.3%. The average percentage of the budget spent for public education by these agencies was 18%. The percentage of the budget spent for professional education ranged from 0.6% to 22.3%. The average expenditure for this program activity was 7.5%.

Furthermore, on the average, patient services accounted for 25.4% of the budget with a range of zero to 71.2%. Community services consumed an average of 14.6% of the budgets, with a range of 3.2% to 37.8%.

Funding raising, when calculated as a percentage of the total income for the fiscal year, 1968, accounted for an average of 22.6% of the budgets of these eight agencies. The percentage used for fund raising varied from a low of 2.8% to a high of 27.4%. Two of the organizations which used small percentages of their total budgets for fund raising produced relatively small amounts of income in comparison to the other organizations. The four organizations (A, B, G and H) which spent the most money in Missouri had percentages of their budgets for fund raising which did not vary greatly from the average percentage (22.6%) used by all agencies for fund raising.

Another and, perhaps, more meaningful way to look at the percentage of income spent on fund raising is to determine the percentage of total income raised which was used for fund raising. Table 6 shows the percentage of the 1968 budget used to raise funds for the following year, fiscal 1969. If one utilized the percentage of funds used for fund raising for income for the 1969 budget, the following results were obtained: agency A = 10.8%; B = 14.3=; C = 15.3%; D = 27%; E = 0.3%; F = 16.9%; G = 16% and H = 4%. The percentage of income spent on fund raising for these agencies averaged 13.1%.

The category, "management and general," consumed an average of 9.3% of the budgets. The range was from a low of 1.9% to a high of 15.6%.

The annual budget of each of the eight voluntary health agencies is reviewed and approved by the following groups or individuals: the budget committee—eight agencies; the executive committee—eight agencies; the board of directors—six agencies; the professional staff —eight agencies.

TABLE 7

COMPOSITION OF BOARD OF DIRECTORS OF SELECTED VOLUNTARY HEALTH AGENCIES IN MISSOURI, 1969

	Board of Directors							
Agency Code	M.D.'S + D.O.'S No.	%	OTHER HEALTH PROFESSIONALS* No.	%	LAYMEN No.	%	*Total* No.	%
A	9	(10.3)	9	(10.3)	69	(79.3)	87	(99.9)
B	28	(62.2)	1	(2.2)	16	(35.6)	45	(100)
C	0	(0)	0	(0)	0	(0)	0	—
D	5	(8.3)	2	(3.3)	53	(88.3)	60	(99.9)
E	11	(15.9)	1	(1.5)	57	(82.6)	69	(100)
F	6	(13.3)	4	(8.9)	35	(77.8)	45	(100)
G	32	(46.4)	5	(7.2)	32	(46.4)	69	(100)
H	4	(16.7)	2	(8.3)	18	(75.0)	24	(100)
Total	95	(23.8)	24	(6.0)	280	(70.2)	399	(100)

* Other Health Professionals includes dentists, veterinarians, nurses, physical therapists, hospital administrators, social workers, and other allied health workers.

Organization of Board of Directors and Committees. The composition of the board of directors of the eight voluntary health agencies in Missouri is shown in Table 7. Members of the board of directors arbitrarily are divided into three groups as follows: M.D.'s plus D.O.'s, other health professionals and laymen. Other health professionals include dentists, veterinarians, social workers, nurses, pharmacists, physical therapists and other allied health workers.

The eight selected agencies reported a total of 399 members on their boards of directors. This provides an average size of about 50 members per board of directors. Of the average of 50 members, 12 were M.D.'s plus D.O.'s, three were other health professionals and 35 were laymen. The memberships of the boards varied somewhat. For example, the percentage of M.D.'s plus D.O.'s ranges from zero to 62.2%. The average percentage of M.D.'s plus D.O.'s on a board was 23.8%. Other health professionals were not represented in large percentages on the boards of directors of these organizations. The range was zero to 10.3%; the average was 6%. Laymen comprised the highest percentage of board members. The average percentage of laymen was 70.2%.

In each of the eight agencies, board members are elected by the membership. Officers of the organization are elected by the board of directors in each agency. The frequency with which the board of directors meet was semiannually for two agencies and quarterly for five agencies. As previously mentioned, agency C does not have a board of directors.

In most of the agencies studied (seven out of eight), an executive committee serves as the working administrative committee of the board of directors. The executive committee meets monthly in three agencies, five times a year in one agency, quarterly in two agencies and annually in one agency. This committee usually has the authority to set policies and take action on administrative matters between meetings of the board of directors. About the only important difference in the composition of boards of directors and executive committees was size: the former has an average of 50 members and the latter has an average of 14.3 members.

The committees used by the eight voluntary health agencies were quite similar. Eight have a budget and finance committee, seven have a professional education committee, six have a public education committee, six have a campaign committee, five have a patient services committee and three have a public information committee. Other committees mentioned in the structure of these organizations were medical advisory, field service, wills and bequests, research, scholarships, membership, structure, legislative and organizational.

Other Internal and External Activities. All agencies, with the exception of one, prepare and distribute annual reports of their program activities and a financial statement. The distribution of these reports varies widely. One of the smaller agencies uses its report as a "house organ" and distribution is limited to the board of directors. One of the larger agencies distributes as many as 25,000 copies and the distribution includes news media, influential contributors, community leaders, board members and agency volunteers.

It was surprising to learn that only four (50%) of the eight voluntary health agencies stated that they had any external relationships with official, governmental health agencies. Most cooperative relationships with tax-supported agencies are on an informal basis and include such groups as the Division of Health, Division of Mental Diseases, Vocational Rehabilitation, the Missouri Crippled Children's Service and the Missouri Regional Medical Program for Heart, Cancer and Stroke. All agencies have formal and informal contacts with each other through such organizations as the Missouri Health Council, the Missouri Council on Health Careers, the Missouri Public Health Association and local health and welfare planning councils.

In spite of the rapid growth of health services through tax-supported agencies, six of the agency executives indicated they were not carrying on activities which, in their opinion, should be assumed by public agencies. Similarly, all the executives indicated they were not planning to discontinue any programs as a result of increased government activity. All agreed, however, that as a health need was demonstrated, the public agency should assume financial responsibility.

The agency executives were questioned about the most important programs being conducted by their organizations at the national, state and local levels. At the national level, six respondents named research and two named program development which includes community organization and assistance to state and locals in solving their operational problems. At the state level, three respondents listed patient services, three listed program development and one each listed public education and professional education as the most important functions of a voluntary health agency. It is interesting to note that agency directors felt that services which provide more individual benefits were of major importance on the local level. Five directors listed patient services and three listed public education as the most important local functions of a voluntary health agency.

Discussion

A limitation of this study was the inclusion of only eight of the larger voluntary health agencies in the study. There were several voluntary health agencies which were not included, thus no conclusions can be made about their organizational structure or their functions. Obviously, the study was limited to the larger agencies and no data were collected about the smaller voluntary health agencies.

The number of years in operation is not related to the growth rate or the total income of an agency. For example, an agency founded in 1907 had an income in 1968 of only $525,000, while two other agencies founded in the 1940's had incomes of $1,240,447 and $707,500, respectively. It would appear that the specific disease concerned and its popular appeal is an important factor related to the income of an agency.

Seven of the eight agencies do not provide an opportunity for their employees to take a leave of absence with pay for advanced academic study. Additional formal training would afford the individual an opportunity of not only increasing his knowledge but, also, of making himself more valuable to his agency. It seems paradoxical that some of these agencies spend thousands of dollars in providing advanced training for physicians and other health professionals while they spend very little in training their own personnel.

Five of the agencies reported no income from United Funds. This is due primarily to the national policies of these agencies. They do not permit their local affiliates to join in federated campaigns.

Reasons expressed for conducting an independent campaign are that the house-to-house drives serve as a potent educational tool and are essential in the dissemination of their health education information and the independent campaign raises more money and provides for each person reached the opportunity to decide how fast he wants to push the fight against that particular disease by contributing directly for that purpose. On the other hand, two advantages for the agencies joining the United Fund are (1) the United Fund reduces the fund raising costs of the agency and releases valuable staff time for additional program activities and (2) the United Fund attracts the support of many of the top community leaders, which enhances the success of the fund-raising appeal.

Each of the eight agencies divided its income on a percentage basis with its national offices. Usually, the agencies which have large national research programs send a greater percent of funds to their national offices. Agencies which are more patient-service oriented spend a greater percentage of their funds in Missouri.

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Data related to percentage of the budget spent in Missouri (Table 6) are misleading. Research allocations from voluntary health agencies normally are made by the national office, not by the local or state office. Thus, the 2.6% shown for research does not present a true picture of the agencies' total research programs in Missouri. Agencies B and G alone spend more than $1 million annually on research in Missouri.

Based on the findings in this study, the following recommendations are made concerning voluntary health agencies in Missouri:

1. Devise a study to include several additional voluntary health agencies.
2. Repeat the present study at five- and ten-year intervals to compare agency operations over a period of time.
3. Conduct a study of the educational backgrounds, interests and attitudes of voluntary health agency board members.
4. Conduct a study of the attitudes of professional staff members of voluntary health agencies.
5. Develop a more meaningful and effective way for the executives of Missouri voluntary health agencies to meet on a regular basis to discuss problems of mutual interest.
6. Establish defined tenure requirements for the board of directors of all voluntary health agencies.
7. Distribute more of the annual reports of voluntary health agencies.
8. Develop a more progressive policy for providing additional academic training for employees of voluntary health agencies.

SUMMARY

A survey of eight of the ten largest voluntary health agencies in Missouri provided the following findings. Each agency is an affiliate of a national organization. Of the Missouri chapters, two were organized prior to 1930, two in the 1940's and four after 1950. The average number of local chapters per agency was 35.6. Of 187 employees of these eight voluntary health agencies, 29% work in the state offices and 71% work in local offices. In both settings, 53% of the personnel were professional workers and 47% were clerical workers. All of the professional staff members were at least high school graduates. The combined income of these eight agencies increased each year: in 1965 the total income was $3,076,239, and this increased steadily until 1968 when the total income was $4,278,978. Only three of the eight agencies participated in the United Fund for income; most of the income of the other agencies was obtained from independent, fund-raising campaigns. Of the income raised by these agencies, an average of 29.6% was sent to the national offices and 70.4% was used for agency programs in Missouri. The percentage of income spent by these eight voluntary health agencies for program activities in Missouri was as follows: research, 2.6%; public education, 18%; professional education, 7.5%; patient services, 25.4%; community services, 14.6%; fund raising, 22.6%; and management and general, 9.3%. Recommendations were made to expand this study and to improve the operations of voluntary health agencies in Missouri.

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Reprints: *Henry M. Parrish, M.D.*
Associate Dean
School of Medicine
University of South Dakota
Vermillion, S. D. 57069

In Memoriam

Thompson, J. William, M.D., Richmond Heights, a graduate of Washington University, 1923; member of St. Louis Medical Society; aged 72; died Oct. 31, 1969.

Dolezal, Joseph B., M.D., Kansas City, a graduate of Creighton University, 1936; member of Jackson County Medical Society; aged 57; died Nov. 22, 1969.

Henke, Charles F., M.D., St. Louis, a graduate of St. Louis University, 1905; member of St. Louis Medical Society; aged 85; died Nov. 28, 1969.

Continuing Education Coming Events

Jan. 23-24	**Relationship of Rehabilitation to Disability Determination** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Feb. 4	**Conference—Office Pediatrics** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Feb. 5-6	**Cerebral Palsy** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Feb. 9-10	**Symposium—Cardiac Auscultation** University of Kansas School of Medicine Kansas City, Kan.
Feb. 10-12	**Seminar—Comprehensive Care in Pulmonary Diseases** Menorah Medical Center, Kansas City 64110
Feb. 28	**Physical Therapy for Chest Diseases** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
March 10-12	**Seminar—Oncology; A Curriculum in Cancer** Menorah Medical Center, Kansas City 64110
March 11-12	**Drug Therapy** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
March 16-18	**Symposium—Pediatrics** University of Kansas School of Medicine Kansas City, Kan.
March 18-19	**Care of the High Risk Infant** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
March 23-25	**Symposium—Surgery** University of Kansas School of Medicine Kansas City, Kan.
March 25-26	**Blood Component Therapy** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201

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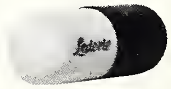

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President's Message

A recent innovation of the Missouri State Medical Association, the County Society Officer's Conference, has become an important and integral function of our organization in just two years.

Time is near for the third of these annual meetings with the session opening at 1:45 PM on Saturday, Jan. 31, 1970 and closing at noon the next day.

Public Service Committee Chairman Dr. Walter T. Gunn and his committee members have developed an excellent program, one of interest to all physicians in Missouri.

The conference is, of course, designed for county society officers and officers of the State Association. However, the meeting is open to all members of MSMA.

Among the speakers this year will be a United States Senator, two members of the Missouri General Assembly, the director of the American Medical Association's Public Affairs Division and others who will speak on topics of interest to medicine.

There also will be special sessions on Sunday morning designed to be of special value to presidents and secretaries of county medical societies in the continuing functions of the local organizations.

Doyle C. McCraw, M.D.

For all those in attendance, there will be a one hour and 45 minute session on Sunday morning during which participants will be divided into small groups to discuss topics of interest to medicine. These informal sessions in the past have proven most fruitful.

Make your plans now to attend the Third Annual County Society Officer's Conference at the Ramada, Inn, Jefferson City—Jan. 31-Feb. 1, 1970.

* * *

Recently, I had a most interesting discussion with the Association's able secretary, Dr. John I. Matthews of Jefferson City, concerning the need for our county societies to do more about planning their programs in advance for the year instead of waiting until the last minute. At the same time, we recognized that some societies are doing a good job of planning in advance.

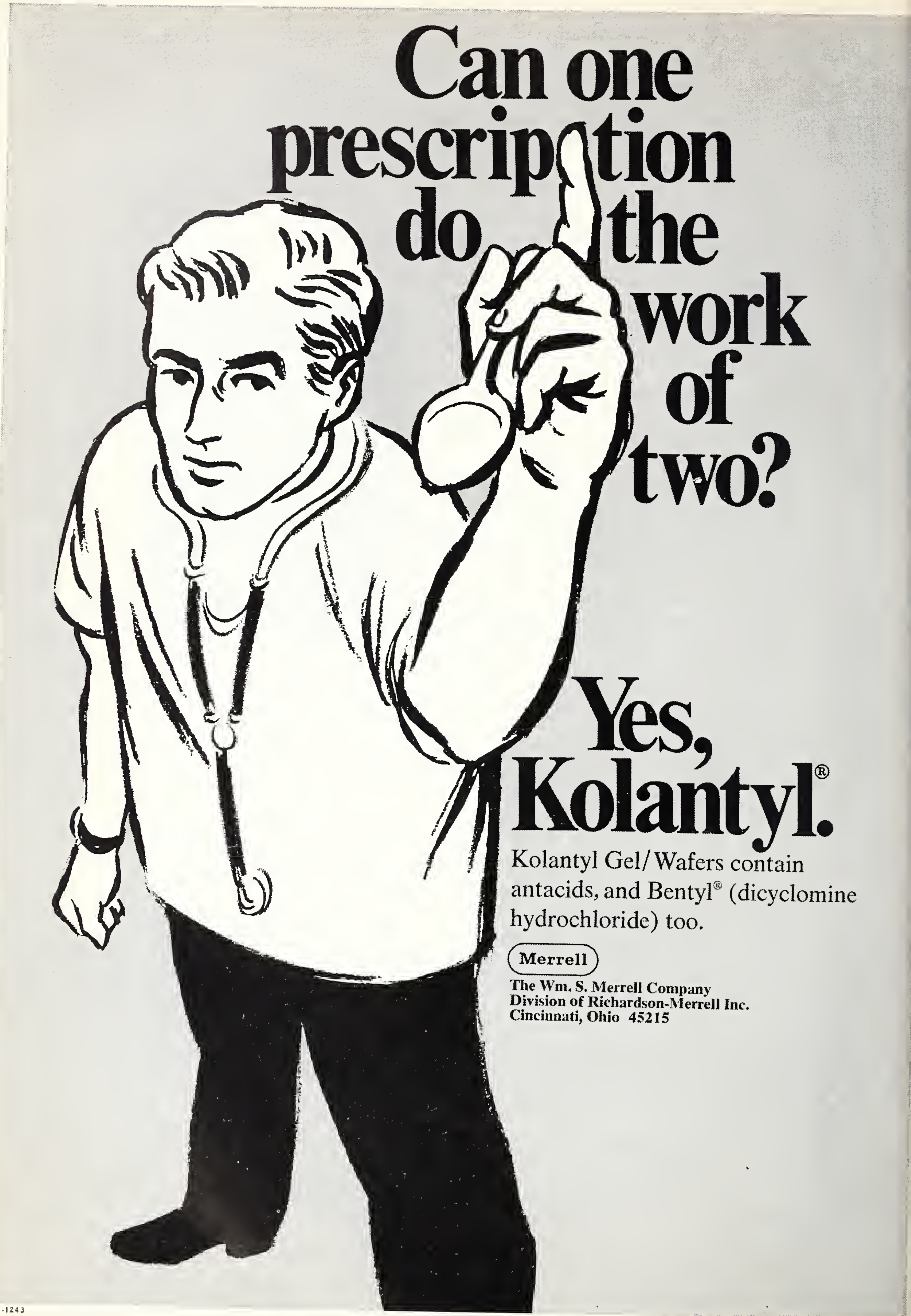
A few suggestions for programs during the year include a Legislative banquet with members of the Legislature and their wives; a new-members welcome affair with medical students from the area; a joint meeting with members of either the bar, dental pharmaceutical, hospital, nurse or other organizations; a meeting for the instruction of delegates for the annual session or a Councilor District meeting or both; and an annual election of officers along with a review of bylaws and the committee structure.

Another possibility would be a community affairs night with the following among potential topics: regional planning program, public health nursing problems, nursing home problems, local health department and its special problems, school health programs and a review of the county health unit program.

I am certain there are many other potential programs in addition to the few listed above.

I encourage all of the new officers of county societies, who will soon be taking office, to work toward a goal of planning all of the programs for the entire year. Such work in advance will help make the county society-year a successful one.

To learn what is being done in other societies and on the state and national level, make plans now to attend the County Society Officer's Conference.



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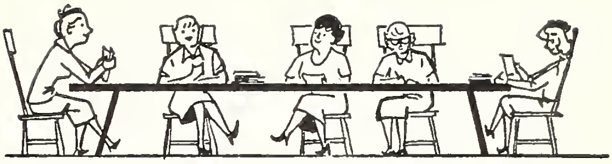

As we embark on this new year and a new decade, let us pause to reflect upon the past so we can reevaluate the future.

The past ten years have been called "the awful 60's" due to the riots, the Vietnam War, the student unrest and the marches. The 60's also can be called "tremendous, terrific and super" because of the advances in space travel, the two landings on the moon and the moon walks, organ transplants, a possible vaccine for leukemia, the psycho-therapeutic drugs and the measles vaccine, to name a few.

Mrs. James A. Reid, President

Most of us say we will not make New Year Resolutions—just to break them. Do take time however, to ask yourself if you have been as kind as you could have been to your mate. Did you say a kind word or pay a compliment? Did you encourage a young person to enter the field of medicine or an allied health field? Did you smile and have a friendly greeting for the nurse, nurse's aid or orderly?

"The more you give, the more you get. . . . The more you laugh, the less you fret. . . . The more you do Unselfishly. . . . The more you live Abundantly. . . . The more of everything you share. . . . The more you'll always have to spare. . . . The more you love, the more you'll find. . . . That life is good and friends are kind. . . . For only What We Give Away. . . . Enriches Us from Day to Day."—*Helen Steiner Rice*

My wish for all of you—Good Health and A Happy New Year in 1970.

EDITORIALS

A NEW MISSOURI APPROACH TO THE AGONY OF CHILD ABUSE

In almost every civilized society, an adult victim of physical violence may bring complaint against his attacker and receive protection or redress under the law. But who speaks for the battered *child*, who often is unable to speak for himself? Ideally, society itself. But in many American states and in other nations the world over, this safeguard is at best imperfect.

Child abuse is a universal offense. Wherever children cry, wherever parents are driven by their own guilt, inadequacy or mental disturbance, irritation can boil up in a blow of irrational savagery—or the torture of slow neglect. The result, too often, is a gravely or fatally injured child, followed by an agony of regret for the violence that cannot be undone.

The "battered child syndrome," a term that made its first appearance in medical journals only seven years ago, has been a subject of mounting concern in legal, medical and child welfare circles. The record has shown that the offenders defy classification by educational or socio-economic criteria. And most attempts to counter child abuse have been flawed by public and professional reluctance to report suspected offenses.

A new law, passed by the Missouri Legislature earlier this year and now in effect, seeks to remedy defects that experience has revealed in 1965 legislation on the subject. The new law does not merely permit but *requires* any individual dealing with children for financial consideration—including, for example, doctors, school nurses and teachers, nursery operators and baby-sitters—to report to juvenile or welfare authorities any suspected case of abuse. Failure to report can bring a maximum of one year in prison and a $1,000 fine.

Persons making such reports in good faith are assured immunity from liability in event of error. Similarly, initial investigation at the child welfare agency level safeguards parents against a damaging criminal arrest record that would result if an unfounded report were handled from the outset as a police matter. A central record-keeping system in Jefferson City will provide a cross-check against repeated offenders who have heretofore escaped detection by taking their child to a different physician or hospital after each episode of abuse.

According to Rep. Kenneth Rothman (D-Clayton), sponsor of the Missouri law, available statistics in this state indicate that one in every 10 abused children is dead within a year; one in three suffers organic brain damage, and all youngsters submitted to parental abuse sustain emotional scars.

The problem, says Rothman, is "an iceberg," with only the tip visible. It is hoped that the mandatory reporting provision will reveal its true dimension. First among the new law's intents is to save the lives of innocents—to detect abuse at some stage before cruelty becomes murder. A secondary hope is to repair and restore family relationships through counseling and expert supervision. Prosecution and the separation of children from their biological parents are measures of last resort.

Considering the nature of the offense, the defenselessness of the victims and the lifelong agony it can produce, the new Missouri approach seems a reasonable blend of humanity and firmness.

The Kansas City Times
Oct. 20, 1969

NON-PROFIT OR NOT-FOR-PROFIT?

Margin and Success! These are the two things that all business must accomplish. Years ago, hospitals were labeled "non-profit" because they existed mainly on charity. Church women brought food for the patients, organizations donated money and personnel worked because they were "dedicated." Needless to say, it was a "hand to mouth" existence. When they said "non-profit," they weren't kidding.

Today, hospitals have expanded to the point where the health industry is becoming number one in the country. They can't rely entirely on donations for existence, they must have those two ingredients: success and margin.

Today's hospital isn't "non-profit," but it is NOT-FOR-PROFIT. This is where the hospital as a business differs from private industry.

Take for example a factory. They have a product to sell. They have a "marketing organization" that sells this product. They have shareholders. Any good that they accomplish along the way is a by-product of their ultimate goal—profit. They send dividend checks to their shareholders every year. They must if they are to stay in business.

Now consider the hospital. They also have a product to sell—service. But how are you going to sell service for something nobody wants—illness? We do, however, have a "marketing organization," but we don't call it by that name. We call it our Medical Staff. And these are the world's most important marketing people because their product is better health.

We don't have shareholders. Our dividends are paid to patients—not in money, but in better care and greater health results. There is no stockholder equity as such listed on the hospital balance sheet.

If we are to accomplish our goal, the best health care possible, we must have those two ingredients: success and margin. In order to do this, this hospital must operate on a very sound business basis. Expansion, equipment, training programs are just a few of the items marked for the attention of our "margin." And all of these ultimately go right back to the patient in the form of better care and facilities.

And, not just a few shareholders enjoy our margin, but every citizen in our community who is sick and needs hospital services shares in our profit.

This is what makes the hospital's true status not-for-profit. Unlike the old days when we were truly non-profit, today we realize that, whereas profit *per se* is not our primary objective, it is a satisfactory level of income over expense which must be attained to insure that our institution can deliver maximum health benefits to patients.

There are many challenges ahead for the health industry—challenges that have never been so great. And, the time has come to prove that the best results are obtained in America when those involved WANT to do something rather than when they HAVE to do it. The government never has and never will run a business as well as private enterprise.

Sometimes physicians think hospitals pay little attention to their wants or needs—but be assured, before programs are instituted or facilities improved, the physicians' ideas and suggestions are carefully weighed because we know they are in a better position to utilize and judge these facilities and programs. We are looking forward to working with you in all future programs which are designed to give your patients better care.

We can assume that the answers to current challenges will provoke new questions, new problems, and new opportunities because the development of maximum health care will unquestionably continue to be the product in greatest demand in our nation.

NEIL C. WORTLEY
Lester E. Cox Medical Center
Administrator
Greene County Medical Society Bulletin

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County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

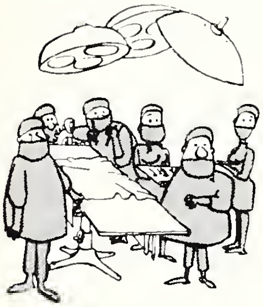
Buchanan County Medical Society

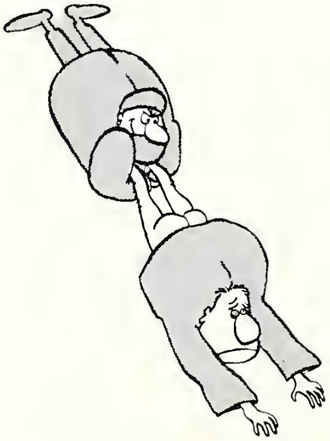
The 14th consecutive joint meeting of the Buchanan County Medical Society and the St. Joseph Bar Association was held on November 12 at the Ramada Inn in St. Joseph.

Guest speaker for the occasion was Dr. Nicholas Dallis of Scottsdale, Ariz., creator of the nationally-syndicated cartoon strip, *Rex Morgan, M.D.* Dr. Dallis also is the author of two other widely-read strips. They are *Judge Parker* and *Apartment 3-6.*

Dr. Dallis spoke on "Life Among the Comic Strip Heroes and Heroines." He was introduced by Dr. Carlyn M. Kline, the Medical Society program chairman.

One hundred physicians and attorneys attended the dinner and program. Presiding jointly were the presidents of the two organizations, Dr. John L. Mothershead and Mr. Franklin T. Thackery.





Lawrence H. Pifer, M.D., *Secretary*

Grand River Medical Society

The November meeting of the Grand River Medical Society and its Woman's Auxiliary was held on November 13 at the Strand Hotel in Chillicothe. A social hour preceded dinner.

The program was under the auspices of the Society's Program Committee and presented George J. Lytton, M.D. of Kansas City. Dr. Lytton, a pediatric psychiatrist, discussed "Diagnosis and Treatment of Functional Behavior Problems in Children."

Windsor B. Atcheson, M.D., *Secretary*

SECOND DISTRICT

COUNCILOR
LYSLE M. BACH, M.D., HANNIBAL

Marion-Ralls-Shelby County Medical Society

The Marion-Ralls-Shelby County Medical Society held its election of officers at its November meeting in Hannibal. Newly-elected officers are Drs. Phillip B. Foreman, President; James K. Mann, Vice-President; and Walter N. A. Latimer, Secretary-Treasurer.

James K. Mann, M.D., *Secretary*

SIXTH DISTRICT

COUNCILOR
WILLIAM D. BRADSHAW, M.D., CLINTON

West Central Missouri Medical Society

The West Central Missouri Medical Society met at the Harrisonville Hotel in Harrisonville on November 13. The customary social hour preceded the dinner and formal meeting of the Society.

Dr. William W. Haynie, President, presided at the scientific portion of the program and introduced Dr. Paul G. Koontz of Kansas City, a general surgeon, who gave an interesting and practical discussion of the topic, "Carcinoma of the Breast." A lively question and answer period and general discussion followed his presentation.

Dr. Haynie then called the business meeting to order. Minutes of the last meeting were read and approved. Correspondence received by the

Secretary since that meeting was discussed. The Treasurer reported that the Society is in good financial condition.

The Program Committee announced that the next meeting of the Society will be held at the Country Club in Nevada on December 11.

A discussion was held concerning the annual donation the Society makes to the Missouri State Medical Foundation and the Society voted unanimously to contribute $100 to the Foundation this year.

The meeting was adjourned.

Roy W. Pearse, Jr., M.D., *Secretary*

Lafayette-Ray County Medical Society

The Lafayette-Ray County Medical Society met at Maib's Cafe in Lexington on November 11 with 17 members and guests present. Dr. Robert Pavlu was a guest at the meeting.

Following the dinner, the meeting was called to order by President Joe Ward who turned the program over to the representative of the Searle Pharmaceutical Company who presented a film on "Aldosterone."

Wayne Boydston, M.D., *Secretary*

EIGHTH DISTRICT

COUNCILOR
HOWARD J. McALHANY, M.D.
SPRINGFIELD

Ozarks Medical Society

The November meeting of the Ozarks Medical Society was held at the Farm House Restaurant in Aurora on November 11. The meeting was called to order by President Mary Jane Merideth. The minutes of the October meeting were read and approved.

Guests included Dr. Doyle C. McCraw, President of the MSMA; Dr. Howard J. McAlhany, Councilor for the Eighth District; and Mr. Royal O. Cooper, MSMA Field Secretary.

Dr. McCraw talked to the Society about current medical problems in Missouri which are related to Medicaid financing, the new proposed medical school in Kansas City and the MSMA.

Dr. McAlhany reviewed subjects expected to be introduced at the upcoming MSMA Annual Session. Mr. Cooper explained the "key man" program for county medical societies and members of the General Assembly.

Officers elected for the next year are Drs. Mary Merideth, President; Paul B. Anderson, Vice-President; Wilbur D. Dabbs, Secretary-Treasurer; MSMA Delegates and Alternates: Roy Gillispie and Charles A. Spears, Taney County; Wilbur D. Dabbs and Paul B. Anderson, Newton County; Fred L. Wommack and Joseph W. Gardner, Stone County; Mary J. Merideth and Robert R. Donley, Barry County; Stanley D. Roper, Christian County; Kenneth Glover and William P. Hamilton, Lawrence County; and George W. Blankenship and Leo T. Taylor, McDonald County.

(*Left to right*) Secretary-Treasurer Wilbur D. Dabbs and President Mary Jane Merideth of the Ozarks Medical Society enjoy a visit with MSMA Councilor Howard J. McAlhany (Eighth District) and MSMA President Doyle C. McCraw.

It was announced that the next Society meeting will be held in Mount Vernon. The meeting was then adjourned.

Wilbur D. Dabbs, M.D., *Secretary*

NINTH DISTRICT

COUNCILOR
E. A. STRICKER, M.D., ST. JAMES

South Central Counties Medical Society

The South Central Counties Medical Society met in Cabool on November 12. Dr. and Mrs. Joe L. Spears of Cabool were hosts at the social hour and dinner.

Dr. Stanley Peterson of Springfield presented a discussion on the Regional Medical Program and Comprehensive Health Planning as it applies to Southwest Missouri.

During a brief business meeting following the program, it was decided that the next meeting will be held on December 3 with Dr. and Mrs. A. T. Walker as hosts.

Dr. and Mrs. O. Martin Hasek, Dr. and Mrs. Joe L. Spears, Dr. and Mrs. Joe A. Wall, Dr. and Mrs. W. T. Morgan, Dr. and Mrs. C. F. Smith, Dr. and Mrs. Amos L. Coffee, Dr. and Mrs. Jack N. Wiles and Dr. R. W. Denney attended the meeting.

Jack N. Wiles, M.D., *Secretary*

New Members

William R. Beaty, M.D., 4660 Maryland, St. Louis, has become a member of St. Louis Medical Society. Dr. Beaty is a native of Texarkana, Ark., received his preliminary education at the University of Missouri and his M.D. degree at St. Louis University in 1965. He specializes in obstetrics and gynecology.

Richard J. Betz, M.D., Sale Hospital, Neosho, has become a member of Ozarks Medical Society. Dr. Betz, is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at the University of Tennessee in 1962. He specializes in internal medicine.

Ronald M. Burde, M.D., 517 S. Euclid Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Burde is a native of New York, N. Y., received his preliminary education at Massachusetts Institute of Technology and his M.D. degree at Jefferson College of Philadelphia in 1964. He specializes in ophthalmology.

Fritz A. Byrum, M.D., 650 Manchester, St. Louis, has become a member of St. Louis Medical Society. Dr. Byrum is a native of Harrisburg, Ark., received his preliminary education at the University of Mississippi and his M.D. degree at the University of Mississippi in 1959. He is in general practice.

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James L. Carpenter, M.D., 1245 Graham Rd., St. Louis, has become a member of St. Louis Medical Society. Dr. Carpenter is a native of East St. Louis, Ill., received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1964. He specializes in urology.

Michael W. Connelly, M.D., 805 Paddock Dr., Florissant, has become a member of Lincoln-St. Charles County Medical Society. Dr. Connelly is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1963. He specializes in ophthalmology.

Anastasios K. Dagartzikas, M.D., 2507 Big Bend, St. Louis, has become a member of St. Louis Medical Society. Dr. Dagartzikas is a native of Greece, received his preliminary education at the First Gymnasium High School and his M.D. degree at the University of Athens in 1959. He specializes in obstetrics and gynecology.

James W. Debnam, Jr., M.D., 510 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Debnam is a native of Louisville, Ky., received his preliminary education at the University of Louisville and his M.D. degree at the University of Louisville in 1962. He specializes in radiology.

Joseph M. Dooley, Jr., M.D., 4989 Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Dooley is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1958. He specializes in neurology.

Martin J. Fischer, M.D., 902 Edmond, St. Joseph, has become a member of Buchanan County Medical Society. Dr. Fischer is a native of Akron, Ohio, received his preliminary education at the University of Akron and his M.D. degree at Washington University in 1961. He specializes in general surgery.

Marvin A. Fishman, M.D., 500 S. Kingshighway, St. Louis, has become a member of St.

Louis Medical Society. Dr. Fishman is a native of Chicago, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1961. He specializes in child neurology.

Coy D. Fitch, M.D., 1325 S. Grand Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Fitch is a native of Marthaville, La., received his preliminary education at the University of Arkansas and his M.D. degree at the University of Arkansas in 1958. He specializes in internal medicine.

James M. Giffin, M.D., Professional Bldg., Springfield, has become a member of Greene County Medical Society. Dr. Giffin is a native of New York, N. Y., received his preliminary education at Amherst College and his M.D. degree at Yale University in 1961. He specializes in surgery.

Robert H. Halley, M.D., 1245 Graham Rd., St. Louis, has become a member of St. Louis Medical Society. Dr. Halley is a native of Greece, received his preliminary education at the University of Salonika and his M.D. degree at the University of Salonika in 1956. He specializes in urology.

Earl S. Hallinger, Jr., M.D., 2209 Kipp Ct., St. Louis, has become a member of Lincoln-St. Charles County Medical Society. Dr. Hallinger is a native of Haddon Heights, N. J., received his preliminary education at Hahneman College and his M.D. degree at Hahneman College in 1933. He specializes in dermatology.

Richard L. Harrison, M.D., 915 N. Grand Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Harrison is a native of Tulsa, Okla., received his preliminary education at Kansas University and his M.D. degree at Kansas University in 1955. He specializes in phychiatry.

Kenneth Herfkens, M.D., 609 Cherry, Springfield, has become a member of Greene County Medical Society. Dr. Herfkens is a native of Yankton, S. D., received his preliminary education at St. John's University and the University of South Dakota and his M.D. degree at Loyola University in 1964. He specializes in internal medicine.

Richard J. Hollocher, M.D., 950 Francis Pl., St. Louis, has become a member of St. Louis Medical Society. Dr. Hollocher is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1962. He specializes in orthopedic surgery.

Abdul Ghani Khan, M.D., 2601 Wittier, St. Louis, has become a member of St. Louis County Medical Society. Dr. Khan is a native of Dacca, East Pakistan, received his preliminary education at Dacca College and his M.D. degree at Dacca College in 1958. He specializes in pediatrics.

Morton A. Levy, M.D., 4652 Maryland Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Levy is a native of St. Louis, received his preliminary education at the University of California and his M.D. degree at Washington University in 1961. He specializes in internal medicine.

Carlos A. Lotito, M.D., 601 E. 63rd, Kansas City, has become a member of Jackson County Medical Society. Dr. Lotito is a native of Buenos Aires, Argentenia, received his preliminary education at San Martin and his M.D. degree at the University of Buenos Aires in 1956. He specializes in internal medicine.

Jack M. Mantell, M.D., 1550 E. Sunshine, Springfield, has become a member of Greene County Medical Society. Dr. Mantell is a native of Milwaukee, Wis., received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1962. He specializes in internal medicine.

Ruben Marmet, M.D., 100 N. Euclid Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Marmet is a native of Kaunas, Lithuania, received his preliminary education at the University of Cincinnati and his M.D. degree at the University of Cincinnati in 1962. He specializes in obstetrics and gynecology.

Silvana Menendez, M.D., 5400 Arsenal, St. Louis, has become a member of St. Louis Medical Society. Dr. Menendez is a native of Habana, Cuba, received his preliminary education at Institute del Vedado and his M.D. degree at the University De La Habana in 1957. He specializes in psychiatry.

Glenn E. Miles, M.D., 1401 Georgia, Louisiana, has become a member of Pike County Medical Society. Dr. Miles is a native of Doniphan, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1968. He is in general practice.

Sam Momtazee, M.D., 4911 Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Momtazee is a native of Shiraz, Iran, received his preliminary education at Shiraz, Iran and his M.D. degree at Pahlavi, Shiraz, Iran in 1961. He specializes in obstetrics and gynecology.

Nathaniel H. Murdock, M.D., 4901-A Easton Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Murdock is a native of Point, Tex., received his preliminary education at Howard University and his M.D. degree at Meharry Medical College in 1963. He specializes in obstetrics and gynecology.

John W. Olney, M.D., 4940 Audubon Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Olney is a native of Marathon, Iowa, received his preliminary education at Iowa University and his M.D. degree at Iowa University in 1963. He specializes in psychiatry.

Alan L. Pearlman, M.D., 660 S. Euclid Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Pearlman is a native of Des Moines, Iowa, received his preliminary education at State University of Iowa and his M.D. degree at Washington University in 1961. He specializes in neurology.

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Abelardo Pena-Ramos, M.D., 1146 Edward Terrace, St. Louis, has become a member of St. Louis Medical Society. Dr. Pena-Ramos is a native of Peru, received his preliminary education at St. Ysabel, Guadalupe National High School and his M.D. degree at Buenos Aires University of Medicine in 1954. He specializes in psychiatry.

Erwin R. Rabin, M.D., 5 Loren Woods, St. Louis, has become a member of St. Louis County Medical Society. Dr. Rabin is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1956. He specializes in pathology.

Anthony J. Rejent, M.D., 4211 Bayless Rd., St. Louis, has become a member of St. Louis Medical Society. Dr. Rejent is a native of Toledo, Ohio, received his preliminary education at St. Louis University and his M.D. degree at Creighton University in 1964. He specializes in pediatrics.

Paul L. Riekhof, M.D., 39th & Rainbow, Kansas City, has become a member of Jackson County Medical Society. Dr. Riekhof is a native of Higginsville, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1965. He is in general practice.

Leo R. Sullivan, M.D., 500 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Sullivan is a native of Waltham, Mass., received his preliminary education at Boston College and his M.D. degree at Tufts University in 1963. He specializes in pediatric neurology.

Richard P. Strader, M.D., 11656 Summerhaven Dr., St. Louis, has become a member of St. Louis Medical Society. Dr. Strader is a native of Danville, Ill., received his preliminary education at St. Ambrose College and his M.D. degree at St. Louis University in 1963. He specializes in anesthesiology.

Albert A. Tassi, M.D., 6 Westminster Ct., St. Charles, has become a member of Lincoln-St. Charles County Medical Society. Dr. Tassi is a native of Los Angeles, Calif., received his preliminary education at the University of Santa Clara and his M.D. degree at St. Louis University in 1961. He specializes in general surgery.

Preliminary Program

MISSOURI SOCIETY OF MEDICAL TECHNOLOGISTS

1970 Annual Meeting

Muehlebach Hotel, Kansas City **April 2-4, 1970**

Room 471

Thursday, April 2

Morning Session

Basic Principles of Tissue Typing, Donald Cross, M.D.
Positive Direct Coombs Tests Due to Drugs, Charles Kelly, M.D.

Afternoon Session

Histochemistry Basic Staining Techniques and Its Application to Disease, Dante Scarpelli, M.D.
Histochemistry as Applied to Neuropathology Basic Staining Techniques, J. Kepes, M.D.

Friday, April 3

Morning Session

New Concepts in Immunology—Lmph as Multi-Potential Cell, Pierre Keitges, M.D.
Therapeutic Research in Malaria—Past, Present and Future, John Arnold, M.D.

Afternoon Session

Instrumentation and Troubleshooting

Saturday, April 4

Morning Session

Interpersonnel Relationship: Personnel Management With the Medical Technologist in Mind

Afternoon Session

Business Meeting

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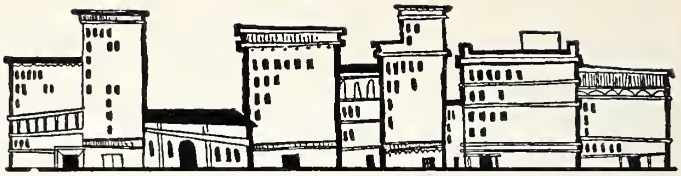
From the Medical Schools



ST. LOUIS UNIVERSITY

Paul J. McBryan, Ph.D., has been named assistant to the dean at the St. Louis University School of Medicine.

Paul J. McBryan, Ph.D.

Formerly associate professor of humanities and social sciences and assistant dean at Park College, Dr. McBryan reports to Dr. Donald W. Bussmann, assistant dean of student affairs at the School of Medicine.

Dr. McBryan holds four degrees, three of them from St. Louis University. He earned the A.B. degree at Villanova University, Villanova, Pa., in 1942. He received the Master of Arts degree in English in 1952, the Master of Business Administration degree in 1955 and the Doctor of Philosophy degree in Education and Economics in 1968.

He has been involved in administration work and teaching at St. Louis University for the last 18 years. He served as acting assistant dean at Park College from 1952 to 1962 and acting dean from 1962 to 1963. He was appointed assistant dean in 1963 and associate professor of humanities and social sciences in 1968.

Additional fall appointments have been announced at the School of Medicine by Rev. Edward J. Drummond, S.J., vice president, Medical Center. Dr. Robert H. Felix, dean of the School, has assumed an additional appointment as professor of community medicine. His primary appointment is professor of neurology and psychiatry.

Other appointees include Dr. Herbert R. Domke, who was named clinical professor of community medicine. His primary appointment is in the Department of Medicine. Dr. William P. Hamilton was named assistant clinical professor of internal medicine and Dr. Andres J. Valdes was appointed assistant clinical professor of pathology.

Other appointees and their ranks are Drs. Kun Ken Hu, senior instructor in internal medicine; Beaumanoir Prophete, instructor in surgery; and Bertrand Y. Glassberg, instructor in community medicine.

Philip A. Katzman, Ph.D., professor of biochemistry, attended a Symposium on Biochemical Endocrinology at Ponte Vedra, Fla. on November 2-6. Studies on "Effects of Estradiol on Vaginal Tissue" with co-authors David L. Larson and Karl C. Podratz were presented and will be published as a chapter in the forthcoming volume, *The Sex Steroids: Molecular Mechanisms* by Appleton-Century-Crofts.

At other meetings held during November, Dr. James B. Lee, associate professor of internal medicine and director, Section of Experimental Medicine, and Dr. John C. McGiff, associate professor of internal medicine and director, Section of Cardiology, participated in the Council of High Blood Pressure Research at the Meeting of the Heart Association in Cleveland.

Dr. Alfred J. Grindon, assistant professor of internal medicine and pathology, participated in a meeting of the American Association of Blood Banks in Houston. Dr. Savitri G. Jain, assistant professor of internal medicine, participated in a meeting of the American Heart Association held in Dallas.

Dr. V. L. Willman, professor and chairman of the Department of Surgery, delivered the annual LeRoy Sante lecture sponsored by the Phi Rho Sigma medical fraternity on November 19. The late Dr. Sante, who founded the St. Louis University chapter of the fraternity, died in 1964. He headed the department of radiology at the School from 1929 to 1960.

Dr. Max Pepper, professor and chairman, Department of Community Medicine, participated in a meeting of the Board of Jewish Center for the Aged on November 22. Topic of the meeting was "Trends and Perspectives for the Aging for the Next Decade." He also attended the regional meeting sponsored by the Regional Medical Program and Brookings Institute on November 21.

Dr. Robert H. Felix, dean, School of Medicine, has been invited to Washington to deliver a series of lectures at St. John's Church, known as "the church of the presidents." Dean Felix will speak to leaders of the church on December 5-6.

WASHINGTON UNIVERSITY

James C. Warren, M.D., Ph.D., of the University of Kansas will succeed Willard M. Allen, M.D., as professor and head of the Department of Obstetrics and Gynecology.

In announcing the appointment, Chancellor Thomas H. Eliot, said that Dr. Warren is an excellent combination of physician, teacher and medical scientist. He has been recognized nationally for his research in the endocrinology and biochemistry of reproduction and at Kansas by the award of a prize for excellence in student teaching.

James C. Warren, M.D., Ph.D.

Dr. Warren presently is professor of obstetrics and gynecology and professor of biochemistry at University of Kansas School of Medicine. He will assume the position here on July 1, 1971.

Dr. Allen, who is retiring, has held his present position since 1940. He is renowned for the discovery of progesterone, a hormone which is an essential part of contraceptive pills. For his contributions to the field of obstetrics and gynecology, he was given the first Eli Lilly Company Award in Biological Chemistry in 1935 and honorary degrees from Hobart College in 1940 and from the University of Rochester in 1957. He was honored as a Markle Scholar in Medicine from 1961 to 1967.

Dr. Warren has published extensively in professional and scientific journals, and has contributed chapters on endocrine therapy and disorders of the menopause to the Gynecology-Obstetrics Guide.

More than $400 was raised from a football game between the Playboy Bunnies and the Washington University Medical School-Barnes Hospital house officers on November 16 in a benefit performance to aid the medical center in the Pruitt-Igoe public housing project.

The Pruitt-Igoe Men's Progressive Club Medical Action Center was established in 1968 to provide care, education and training for the residents. Private contributions have supported the center's operation. It is staffed on a volunteer basis from 7 PM to 9 PM nightly by Medical School faculty members and students and interns and residents from Barnes Hospital.

Estelle Brodman, Ph.D., librarian and professor of medical history, was guest speaker at the William Beaumont Pilgrimage of the St. Louis Medical Society on November 21 at Bellefontaine Cemetery. Dr. Brodman is an authority on the life of Dr. Beaumont, the first American physiologist of digestion.

The Washington University Medical Alumni Association was host to 24 high school seniors from the St. Louis area at its annual honor student tour on November 28. The group was given special attention and demonstrations in the departments of pathology, radiology, internal medicine, and physiology and biophysics.

At noon the students lunched with alumni, faculty members and medical students who spoke about medical careers.

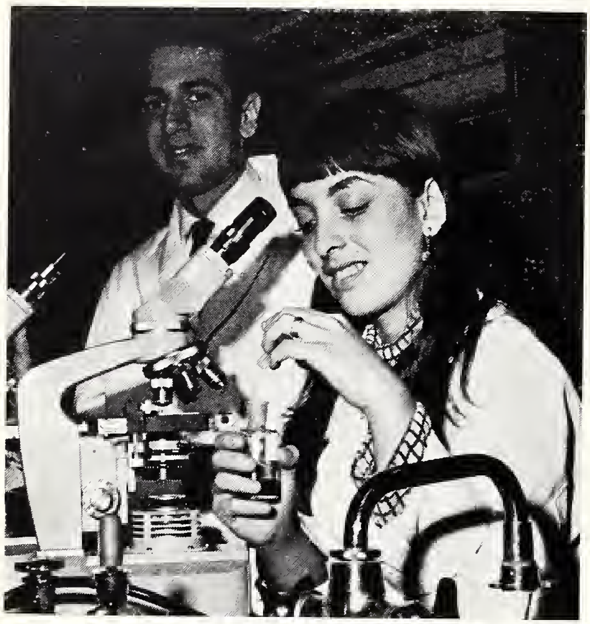
Artist Mrs. Elsa Schmid Neuman of Rye, New York was guest at the November 20 unveiling of her mosaic "Mother and Child" in Mallinckrodt Institute of Radiology's radiation therapy waiting room.

Mrs. Neuman, who has been a patient, had given the portrait to her friends, Dr. and Mrs. Carlton C. Hunt with the understanding that they would, in turn, present it to be displayed in its present place. Dr. Hunt is Edward Mallinckrodt, Jr., Professor and head of the department of physiology and biophysics at Washington University School of Medicine.

Seated beneath "Mother and Child," the mosaic now gracing Mallinckrodt Institute of Radiology's radiation therapy waiting room, are (left to right) Carlos Perez, M.D., associate professor of radiology and director of the division of radiation therapy; Mrs. Elsa Schmid Neuman, mosaic artist; Mrs. Hunt, and Carlton C. Hunt, M.D., Edward Mallinckrodt, Jr., Professor and head of the department of physiology and biophysics, Washington University School of Medicine.

Carols Perez, M.D., associate professor of radiology and director of the division of radiation therapy, formally accepted the artwork for the Institute.

UNIVERSITY OF MISSOURI



Harry and Joanne Cornbleet

A soon-to-be-published book on cancer research, compiled by one of the world's foremost investigators in that field, will include a chapter reporting the results of recent research conducted by two second-year students in the School of Medicine.

Joanne and Harry Cornbleet, a young couple who were married this past summer after their first year in medical school, report on "Differences in Pharmacological Reactions Between Normal and Tumor-Bearing Animals." Their manuscript will appear in a book by Dr. Waro Nakahara, director of the National Cancer Center Research Institute in Tokyo, Japan, formerly an outstanding researcher at the National Cancer Institute of the United States and a world-renowned leader in cancer studies.

The Cornbleets' research grew out of a project in their biochemistry studies last year. Commenting on their work, Dr. Solomon Garb, professor of pharmacology, said, "It is a magnificent accomplishment that would reflect credit to a professor. For medical students, it is astonishing."

Mrs. Cornbleet is the former Phyllis Joanne Albert, daughter of Dr. and Mrs. Monroe Albert, San Antonio. Harry J. Cornbleet is the son of Mr. and Mrs. Zelig Cornbleet, St. Louis. His father is a pharmacist.

The human reproductive biology section of the University of Missouri-Columbia has received international recognition by the election of Dr. Mostafa Fahim to membership in the International Fertility Association.

Dr. Fahim, assistant professor of obstetrics and gynecology, has been on the staff of the Medical Center for three years, doing research in reproductive physiology. He is author or coauthor of more than 20 scientific papers concerning reproductive biology and physiology, the action of estrogens, enzyme induction and the influence of certain drugs on human reproduction.

A $1,000 Pfizer Laboratories Scholarship was awarded to Miss Martha Lusser, a fourth-year medical student from St. Louis at the annual Fall Awards Convocation at the University Medical Center.

The Pfizer and ten other awards were presented after Dr. Robert Coombs, associate professor of behavioral sciences at Bowman Gray School of Medicine, spoke on the problems of medical marriages.

Other scholarship winners were Robert D. Marienfeld, third-year student, Columbia, who received a $250 J. C. Parrish Scholarship and a Microbiology Book Award, and Michael D. Laseter, a third-year student from Sikeston, who received a $100 Medical School Foundation Pharmacology Award.

A Hoffman-Roche award of a gold wrist watch and scroll was given to third-year student W. Scott Serrill of Kansas City. David H. Stubbs, Cape Girardeau, was awarded $50, a three-year subscription to *New England Journal of Medicine* and engraved wooden bookends for his work in physiology.

Charles K. Osborne, Kirkwood, was awarded the James S. Rollins Scholarship of $50.

Merck Manual Awards were given to two students, John C. Hackethorn, Houston, Tex., and Ashley R. Tucker, Westboro.

Six students were awarded Lange Book awards. They are Mrs. Martha J. Holt, Kansas City, and John J. Krautmann, Jefferson City; Miss Donna A. Heicher, St. Louis, and Alan K. Davis, St. Joseph, Mich.; Samuel M. Young, Jr., LaGrange, and James W. Rossiter, Decatur, Ill.

Four seniors were recognized for membership to Alpha Omega Alpha, national medical honor society. They are Welby Cox, Smithville; Michael J. Bukstein, Cape Girardeau; David A. Taryle, University City; and Richard Holt, Columbia.

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lthough not all clinicians agree on the value of vasodilators in vascular disease,[1] *several investigators*[2-5] *have reported favorably on the effects of soxsuprine on cerebral blood flow. Effects have been demonstrated both by objective measurement*[2,5] *and observation of clinical improvement.*[2-4] **ndications:** Cerebrovascular insufficiency, arteriosclerosis obliterans, diabetic vascular diseases, thromboangiitis obliterans (Buerger's disease), aynaud's disease, postphlebitic conditions, acroparesthesia, frostbite syndrome and ulcers of the extremities (arteriosclerotic, diabetic, thrombotic). **omposition:** VASODĪLAN tablets, isoxsuprine hydrochloride 10 mg. **Dosage:** Oral—10 to 20 mg. (1 or 2 tablets) t.i.d. or q.i.d. **Contraindications nd Cautions:** There are no known contraindications to recommended oral dosage. Do not give immediately postpartum or in the presence of arterial leeding. **Side Effects:** Occasional palpitation and dizziness can usually be controlled by dosage reduction. As intramuscular administration of 10 g. or more may cause brief hypotension and tachycardia, single intramuscular doses exceeding this amount are not recommended. Complete etails available in product brochure from Mead Johnson Laboratories **References:** (1) Fazekas, J. F.; Alman, R. W.; Ticktin, H. E.; Ehrmantraut, W. R., and Savarese, C. J.: Angiology *15*:No. 2 (Feb.) 1964. (2) Horton, G E., and Johnson, P C., Jr.: Angiology *15*:70-74 (Feb.) 1964. (3) Clarkson, . S., and LePere, D M · Angiology *11*:190-192 (June) 1960 (4) Dhrymiotis, A D , and Whittier, J R.: Current Therapeutic Research *4*:124-128 (April) 1962 (5) Whittier, J R.: Angiology *15*:82-87 (Feb) 1964

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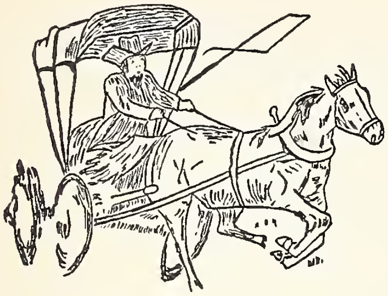
LEO H. POLLOCK, M.D.

Missouri Medicine in Review



FORTY YEARS AGO

Dr. Russell L. Haden, Kansas City, and Dr. Joseph Colt Bloodgood, Baltimore, were presented the gold medal of the Radiological Society of North America at its 15th annual meeting in Toronto on Dec. 2, 1929. This honor was bestowed upon Dr. Haden for his research work in the x-ray study of dental infection. Dr. Bloodgood, clinical professor of surgery at Johns Hopkins University School of Medicine, was given the award for his work in the study of bone malignancy, its diagnosis and treatment by x-ray and radium. Only 18 persons have been awarded the Radiological Society's gold medal, including Mme. Curie of France.

Drs. M. Pinson Neal and Max M. Ellis of the University of Missouri School of Medicine contributed a paper entitled "The Etiological Factor of Fat Necrosis" to the Section of Pathology of the Southern Medical Association at Miami. Dr. Neal, who is professor of pathology at the University of Missouri, was elected secretary of the Section on Pathology.

On Nov. 2, 1929, the new McCune-Brooks Hospital at Carthage was formally opened by a "Doctor's Dinner" given by the hospital staff. Approximately 100 men from adjacent cities and nearby counties were present. Dr. Everett Powers, Carthage, acted as toastmaster. Dr. H. L. Kerr, Crane, president of the State Board of Health, also addressed the meeting. The hospital was made possible through the gift of $75,000 by the late Col. John C. Guinn of Carthage. This sum was duplicated by a city bond issue.

TWENTY-FIVE YEARS AGO

Dr. Richard L. Sutton, Jr., Kansas City, has been promoted to Major. He is located at the Woodrow Wilson Hospital at Staunton, Va.—Maj. Gen. Norman T. Kirk, Surgeon General, spoke before the commanding officers of Medical Depots at a meeting in St. Louis in November.

Capt. Leon F. Weyerich, St. Louis, has received the silver star for gallantry in action. He was a member of the original assault battalion which participated in the landings in Normandy on D-Day.—Lt. Col. Curtis H. Lohr, St. Louis, has been promoted to the rank of Colonel.—Lt. Col. Luke A. Knese, St. Louis, recently was home on furlough from the Hawaiian and South Pacific area for the first time since February, 1941.

TEN YEARS AGO

The Department of Health, Education and Welfare reports that, as of October 31, the status of all Hill-Burton grants for Missouri show 49 operations completed and in operation at a total cost of $56,974,905, including a federal contribution of $21,412,417.

In 1955, the School of Medicine of the University of Missouri was established as a four-year school, bringing to three the number of medical schools in Missouri. Since that time, two other four-year schools have been established, namely the Albert Einstein College of Medicine and the Seton Hall College of Medicine. More than 450 medical schools have existed at one time or another in this country, some for brief periods only, others for nearly 200 years. Of these, Missouri has accounted for 33 of which there are now only St. Louis University School of Medicine, Washington University School of Medicine and the University of Missouri School of Medicine. Among the oldest of the schools currently active and approved are the University of Pennsylvania School of Medicine, established in 1765; Columbia University College of Physicians and Surgeons, established in 1767; and Harvard Medical School, established in 1782. Publicly-owned medical schools today number 39, and there are 45 privately-owned schools.

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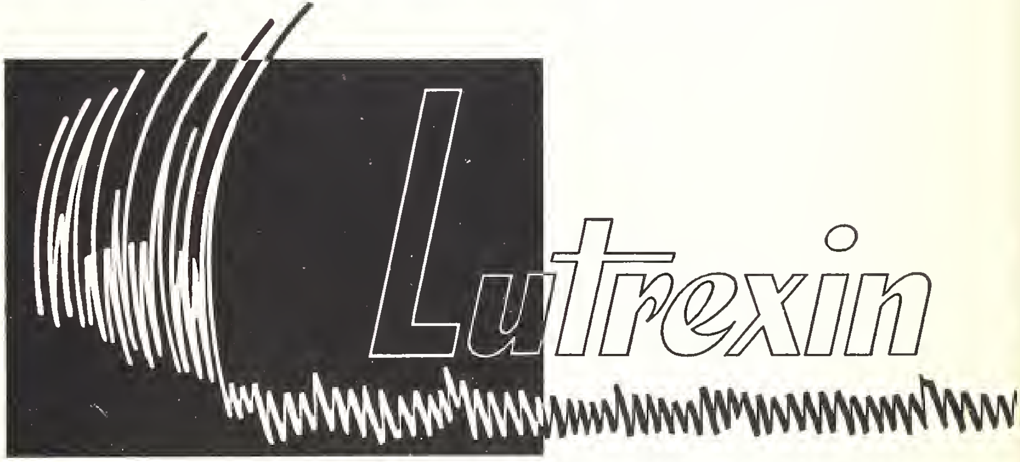

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Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Dr. De Bakey Among Noted Speakers For MSMA Annual Meet

Dr. Michael E. De Bakey of Houston, Texas, a physician long rominent in United States health affairs, will be a participant at e 112th Annual Session of the Missouri State Medical Association heduled April 2-5 of this year at the Muehlebach Hotel, Kansas ity.

Dr. De Bakey will appear on the program at 2 p.m. on Friday, pril 3. His topic will be "Patterns of Coronary Arterial Disease nd Surgical Significance." The program is sponsored by the Missouri tate Surgical Society. Moderator will be Dr. Howard E. Linville f Kansas City. Also appearing on the same program will be Dr. allee L. Willman of St. Louis who will discuss "Radiological Diag- osis of Bilary Tract Disease."

Dr. De Bakey is a native of Lake Charles, Louisiana, and a raduate of Tulane University's Medical School. His certifications re with the American Board of Surgery, the American Board of horacic Surgery and the National Board of Medical Examiners.

Dr. De Bakey is President and Chief Executive Officer of the aylor College of Medicine at Houston. He is also Distinguished ervice Professor and Professor and Chairman of the Cora Webb ading Department of Surgery at the Houston School.

Advisory Appointments Listed

Among Dr. De Bakey's advisory appointments are: American ollege of Surgeons/National Institutes of Health Organ Transplant egistry International Advisory Committee; American Heart Asso- ation Council on Epidemiology; Committee for National Health surance; Greek-American Committee of Surgeons; National Insti- tes of Health National Advisory Council on Regional Medical rograms, National Institutes of Health Advisory Heart Council; ational Institutes of Health Program Planning Committee and ommittee on Training; National Research Council Committee on pidemiology and Veterans Follow-up Studies; and Office of As- stant Secretary of Defense Department of Defense Medical Ad- isory Council.

The Missouri State Surgical Society sponsored program featur- g Drs. De Bakey, Linville and Willman is just one of a number outstanding sessions during the 112th Annual Meeting of the Mis- uri State Medical Association.

Friday's program opens at 9 a.m. and continues on until 3:30 m. Saturday's session also opens at 9 a.m. and continues until p.m.

House of Delegate sessions are scheduled at 1:30 p.m. on Thurs- ay, April 2; at 4 p.m. on Friday; and at 7:30 a.m. on Sunday.

Plan Two General Luncheons

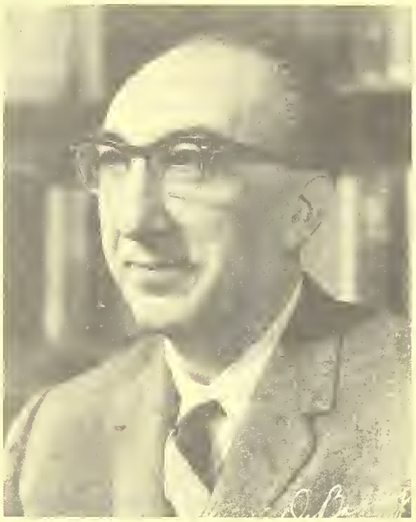
Two general luncheon sessions have been scheduled. The Fri- ay noon luncheon speaker will be Ewing M. Kauffman, President the Kansas City Royals baseball team.

At noon Saturday the luncheon speaker will be Missouri Lieu- nant Governor William Morris.

A number of organizations will be holding their meetings in onjunction with the 112th Annual Session of the Missouri State edical Association.

MSMA News

* * *



Dr. De Bakey

* * *

The latest copy of the preliminary program for the 112th Annual Session, April 2-5, 1970 at the Hotel Muehlebach, Kansas City, starts on page 76 of this, the February edition of **MISSOURI MEDICINE.**

Don't Miss
The 112th Annual
MSMA MEETING
April 2-5, 1970
Kansas City

Name Dr. Ellis To Important, New AMA Post

CHICAGO, Ill., Jan. 5, 1970—Dr. Effie O. Ellis, nationally known for her work with the health and nutritional problems of the poor, will join the American Medical Association February 1 in an important new post.

According to E. B. Howard, M.D., AMA Executive Vice President, Dr. Ellis will report directly to him as Special Assistant for Health Services. The position is newly-created.

Dr. Ellis, of Columbus, Ohio, presently serves as the Director of Maternal and Child Health for the Ohio State Department of Health.

Commenting on the appointment, Dr. Howard said, "The AMA is extremely fortunate to have persuaded Dr. Ellis to accept this important new post. The insight that she will bring to the activities of the AMA's Committee on Health Care of the Poor, as well as in many other areas of concern, will be of vital importance.

Dr. Howard said Dr. Ellis' selection for the full-time position had been approved by the AMA Board of Trustees.

"The AMA has a commitment to do everything in its power to meet the health care needs of every American," Dr. Howard said. "Dr. Ellis will bring to us a wealth of knowledge and experience about the special needs of the disadvantaged."

Dr. Ellis has served the Federal government in a number of capacities, most recently as chairman of a panel group at the 1969 White House Conference on Food and Nutrition. She has also served in the Department of Health, Education and Welfare as its first Regional Commissioner for Social and Rehabilitation Service, and Regional Medical Director of HEW's Children's Bureau, both in Midwest Region Five.

Earlier, Dr. Ellis, a native of Georgia, served the Ohio Health Department as a pediatrics consultant.

For more than eight years, Dr. Ellis was Director of Medical Education and house pediatrician at Provident Hospital, in downtown Baltimore, Md. It was here, Dr. Ellis said, that she first became familiar with the specialized health care needs of the poor.

She also serves on state advisory committees for crippled children and school health, and is active in the Association for Maternal and Child Health. Family planning is one of her major concerns.

A graduate of Atlanta's Spelman College, Dr. Ellis has a master's degree in biology from Atlanta University. She is a graduate of the University of Illinois Medical School and served her internship there at University Hospital. She also served a pediatrics residency at Massachusetts General Hospital and did additional pediatrics work a Johns Hopkins University Medical School.

Dr. Ellis is married and has a daughter and two grandchildren

Dr. Hildebrand Heads Private Practice Group

CHICAGO, Ill.—W. B. Hildebrand, M.D., of Menasha, Wis., has been elected chairman of the American Medical Association's Committee on Private Practice during its organizational meeting here.

The Committee, a component of AMA's Council on Medical Service, was created by the House of Delegates at its recent Clinical Session in Denver.

A former president of the American Academy of General Practice, Dr. Hildebrand has been a member of the Council since 1968. He is also an AMA Commissioner to the Joint Commission on the Accreditation of Hospitals. From 1960-64 Dr. Hildebrand served as a member of AMA's Commission on the Cost of Medical Care.

Vice-chairman of the new Committee is Robert E. Tschantz, M.D., of Canton, Ohio.

Other physician members are: C. Willard Camalier, Jr., Washington, D.C.; Burns A. Dobbins, Fort Lauderdale, Fla.; Frank H. Green, Rushville, Ind.; Warren A. Lapp, Brooklyn, N.Y.; Clinton S. McGill, Portland, Ore.

Also, John G. Morrison, San Leandro, Calif.; Tom E. Nesbitt, Nashville, Tenn.; Andrew L. Thomas, Chicago; George W. Wood, III, Brewer, Maine.

Premium For Medicare To $5.30 July 1

The monthly premium for the voluntary part of Medicare which covers physicians' fees and other medical expenses will increase from $4.00 to $5.30 on July 1 of this year, according to Health, Education and Welfare Secretary Finch.

These premiums, paid by 19.3 million elderly, cover one-half of the cost of the program. The other half of the $10.60 monthly premium comes out of general revenue.

In announcing the increase, Secretary Finch said that the failure of his predecessor, Wilbur Cohen, to increase the $4.00 premium last year had put a drain on the program's reserves, leaving enough to pay just one month's bills by the end of the fiscal year. He said that it therefore became necessary "to provide for somewhat higher margin of contingency than would otherwise be necessary."

Secretary Finch said that about one-half of the $1.30 increase (64 cents) will be needed as follows: 26 cents to cover six per cent increase in physicians' fees 12 cents to cover two per cent increase in Medicare services six cents to keep deductible for physician bills at $50 despite general cost increases; and 22 cents to provide a four per cent safety margin in the insurance fund.

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The 112th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

April 2-5, 1970

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Preliminary Program
112th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

Muehlebach Hotel, Kansas City **April 2-5, 1970**

Thursday, April 2

11:00 AM Registration of Delegates.
1:30 PM House of Delegates Meeting, opening session.
4:30 PM Reference Committee Meetings.

Friday, April 3

8:00 AM Registration.

9:00 AM *Potentials and Problems of Comprehensive Health Planning and Care.* (Panel Participants and Moderator to be announced.)

9:00 AM Panel on *Rheumatoid Arthritis.* (Sponsored by the St. Louis Rheumatism Society.)
Panel Participants:
Medical Aspects of Surgery in Arthritis, David H. Neustadt, M.D., Louisville, Ky
Pre- and Post-Operative Exercises for Arthritic Patients, Norman A. Rose, M.D., St. Louis.
Surgery in Rheumatoid Arthritis, D. Elliott O'Reilly, M.D., St. Louis.

10:30 AM Intermission to view exhibits.

11:00 AM Program sponsored by the MSMA Committee on Disaster Medical Care and National Defense.
Moderator: John T. Crowe, M.D., Cape Girardeau.
Panel Participants:
Emergency Physician, Raymond R. Hannas, Jr., M.D., Kansas City.
(Second Participant to be selected.)

11:00 AM *Endotoxic Shock*, Keith P. Russell, M.D., Los Angeles, Calif. (Sponsored by MSMA Committee on Maternal Welfare.)

11:00 AM *Emotional Problems of Adolescents* (Sponsored by the Missouri Academy of Psychiatry).
Moderator: Edmund V. Cowdry, Jr., M.D., St. Louis, President, Missouri Academy of Psychiatry.
1. *Putting Youth Into Today's Context*, Fernando Tapia, M.D., Columbia.
2. *Guilt and Homework*, George J. Lytton, M.D., Kansas City.
3. *Dropouts, Delinquents, Drugs, Depression (The Drama of the Abandonment Syndrome in Adolescents)*, James F. Masterson, Jr., M.D., New York.

12:00 NOON Committee on Maternal Welfare Luncheon
General Luncheon: Guest Speaker, Ewing M. Kauffman, President, Kansas City Royals Baseball Club.
University of Missouri Alumni Luncheon.

2:00 PM *Comprehensive Care of the Indigent.*
Moderator: Hector W. Benoit, Jr., M.D., Kansas City.
Panel Participants:
Max P. Pepper, M.D., St. Louis.
James M. Whittico, M.D., St. Louis.
Third Participant to be selected.

2:00 PM *The General Practitioner in Industrial Medicine.* (Sponsored by MSMA Committee on Industrial Health.)
Moderator: Richard A. Sutter, M.D., St. Louis
Panel Participants:
I. *His Role: Part Time Medical Services to Industry*, Henry F. Howe, M.D., Chicago, Ill.
II. *Disability Evaluation: Disability Rating in Workmen's Compensation Cases*, Mr. James I. Kaut, Kansas City.
Discussants:
William L. Macon, Jr., M.D., St. Louis.
Paul J. Centner, M.D., Kansas City.

2:00 PM Program sponsored by Missouri State Surgical Society.
Moderator: Howard E. Linville, M.D., Kansas City.
Panel Participants:
1. *Patterns of Coronary Arterial Disease and the Surgical Significance,* Michael E. De Bakey, M.D., Houston, Texas.
2. *Radiological Diagnosis of Biliary Tract Disease,* Vallee L. Willman, M.D., St. Louis.

3:30 PM Intermission to view exhibits.

4:00 PM House of Delegates, second session.

5:30 PM Missouri State Medical Foundation Annual Meeting.

6:00 PM Reference Committees.

Saturday, April 4

8:00 AM Registration.

9:00 AM *Changes in Medical Education.* (Sponsored by MSMA Committee on Medical Education and Hospitals.)
Moderator: Ralph R. Hall, M.D., Kansas City.
(Panel Participants to be announced.)

9:00 AM *Mechanical Assistance for the Failing Heart.* (Sponsored by the Missouri Heart Association.)
Moderator: Albert M. Estes, M.D., Cape Girardeau.
Panel Participants:
Intraaortic Phase-Shift Balloon Pumping in Cardiogenic Shock, Adrian Kantrowitz, M.D., Brooklyn, N. Y.
The Nature of Heart Failure, Edmund H. Sonnenblick, M.D., Boston, Mass.

9:00 AM Program sponsored by Missouri Chapter, American Cancer Society.
Moderator: G. Neil Berry, M.D., Kansas City.
Panel Participants:
Role of Transplantation in Oncology, Joseph G. Fortner, M.D., New York, N. Y.
Discussants to be announced.

10:30 AM Intermission to view exhibits.

11:00 AM *Many Faces of Depression.* (Panel Participants and Moderator to be announced.)

11:00 AM *Resuscitation and Transportation of the Injured.* (Sponsored by the Missouri Chapter of the American College of Surgeons.)
Moderator: John A. Collins, M.D., St. Louis.
Panel Participants:
F. D. Farrington, M.D., Minocqua, Wisc.
Marshall B. Conrad, M.D., St. Louis.
Frank L. Mitchell, M.D., Columbia.

11:00 AM *Symposium on Chronic Renal Disease.*
Experience with Chronic Home Hemodialysis in the Indigent, Francisco Gonzales, M.D., New Orleans, La.
(Additional Participants to be announced.)

12:30 PM Fifty-Year Club Luncheon.
General Luncheon: Guest Speaker, Honorable William S. Morris, Lieutenant Governor, State of Missouri.

2:30 PM *Liberalization of Missouri Abortion Law.* (Sponsored by the Missouri Obstetrical and Gynecological Society and the MSMA Committee on Medicine and Religion.)
Moderator: George J. L. Wulff, Jr., M.D., St. Louis.
(Participants to be announced.)

2:30 PM *Panel on Iatrogenic Diseases.*
Panel Participants:
David M. Spain, M.D., Brooklyn, N. Y.
Fred V. Lucas, M.D., Columbia.
David Ginder, M.D., Columbia.

4:00 PM Intermission to view exhibits.

6:30 PM Social Hour for those attending the Banquet.

7:15 PM Annual Banquet in Honor of Past Presidents of MSMA.
Guest Speaker, The Hon. Calvin Dean Johnson, Consultant on Public Affairs, American Trucking Associations, Inc., Washington, D. C.

Sunday, April 5

7:30 AM House of Delegates Meeting, breakfast and final session.

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Preliminary Program

MISSOURI SOCIETY OF MEDICAL TECHNOLOGISTS

1970 Annual Meeting

Muehlebach Hotel, Kansas City **April 2-4, 1970**

Room 471

Thursday, April 2

Morning Session

Basic Principles of Tissue Typing, Donald Cross, M.D.
Positive Direct Coombs Tests Due to Drugs, Charles Kelly, M.D.

Afternoon Session

Histochemistry Basic Staining Techniques and Its Application to Disease, Dante Scarpelli, M.D.
Histochemistry as Applied to Neuropathology Basic Staining Techniques, J. Kepes, M.D.

Friday, April 3

Morning Session

New Concepts in Immunology—Lmph as Multi-Potential Cell, Pierre Keitges, M.D.
Therapeutic Research in Malaria—Past, Present and Future, John Arnold, M.D.

Afternoon Session

Instrumentation and Troubleshooting

Saturday, April 4

Morning Session

Interpersonnel Relationship: Personnel Management With the Medical Technologist in Mind

Afternoon Session

Business Meeting

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Special Report

Educational Philosophy—University of Missouri-Kansas City Medical School

E. G. DIMOND, M.D., RICHARDSON K. NOBACK, M.D., ***and***
ROBERT J. LAUR, Ph.D., ***Kansas City***

The current medical manpower shortage in Missouri and the need for additional educational opportunities are the concern of every physician in the state. The following report is being published in Missouri Medicine *to inform the members of the Missouri State Medical Association of the philosophic concepts guiding the development of the Medical School in Kansas City. Statements by the Medical Advisory Committee to the Board of Curators of the University of Missouri and W. D. Mayer, M.D., Dean of the School of Medicine, University of Missouri—Columbia, accompany this report. Dr. Dimond is Provost for Health Sciences, University of Missouri—Kansas City; Dr. Noback is Acting Dean, University of Missouri—Kansas City Medical School and Dr. Laur is University-Wide Coordinator for Professional Education.*

The following pages define the philosophic concepts guiding the development of the new University of Missouri—Kansas City Medical School. The Medical Advisory Committee endorses these concepts and this approach to the development of medical education in Kansas City.

I. Introduction

The basic character of medical schools is determined by the fact that their fundamental purpose is to educate professionals. We postulate that the prime objective of a professional is to apply a sophisticated body of knowledge and skills to the solution of problems faced by people. In so doing, he will follow self-imposed standards of performance—standards which will be higher than those which could be legally required. The professional is, in other words, a morally responsible problem-solver on behalf of people in difficulty. Therefore, if the professional is to be of service to his clients, he must be action-oriented.

We further postulate that critical to the education of professionals is the development of their capacity for "clinical judgment." We believe this can best be accomplished by providing early and continuing contact between the student and a team of clinician-scholars, whom we have called "docents." We have defined a docent as a university scholar whose first responsibility is to the education of the students in his area. He provides individualized attention to the needs of students by virtue of his geographic proximity to them, direct communication and the presentation of a model of the integration of personal needs and competence into a professional career of delivering health care services. In short, the docent serves as a guide and coach in the development of clinical competence.

II. Assumptions

We have made the following assumptions:

A. That the core educational program should be designed and controlled by:
  1. Individuals *primarily* concerned with the education of the student candidate for the M.D. degree, and
  2. Physicians who have limited, primary, and realistic patient care responsibilities for a representative population of patients. The care which they provide will extend into the community and home.

B. That patient problems as seen by the primary physician will provide the core content of the curriculum, thus providing an education which will be problem centered.
   1. Basic sciences will be available from all University disciplines with few, if any, new departments created.
   2. The clinical specialty disciplines as such will be available in the affiliate hospitals, but their departmental organization will be responsive to that hospital rather than the curriculum per se.

C. That the professional of the future will depend heavily upon automated resources for needed factual data and for complex analytical solutions to problems.

D. That the best professional education will take place in the most realistic setting, and that the span of time required can be reduced through individualized approaches to the particular intellectual needs of each student and his particular background.

E. That by use of didactors and appropriate challenge examinations comparable to required national board examinations, the "threshold" recommended for basic factual information can be acquired at a rate and in a manner responsive to the student's interest and capabilities, utilizing agreed upon standards developed by all disciplines involved but screened by a senior scholar (the docent) who has the student as his first responsibility.

II. Goals

In the light of these assumptions, the goals of the Medical School of the University of Missouri—Kansas City are:

A. To individualize the educational process for medical students by providing continuing contact between scholars at all levels and by facilitating the access of those scholars to all necessary sources of information.

B. To expedite and maximize the use of precious educational hours.

C. To educate the student in a prototype setting of his future office and practice relationships.

D. To develop a model of university-community cooperation, where each component provides those programs of special concern and interest to it.

E. To provide the student with a relevant clinician or basic science model with which he can identify and to which he can aspire.

IV. Operating Conditions

In light of the assumptions and goals stated above, the Medical School program has been designed to meet the following operating conditions:

A. *Students*
   1. Students will be grouped in sections of 12 with three students from each class in the group. A specific relation will be established between each first year student with a second year, third year and fourth year student.
   2. A close working relationship will be developed with students immediately out of high school who are studying at the collegiate level and who wish to enter any one of the several health fields. By special counseling and appropriate challenge examinations, those who seem particularly fitted for medicine will be allowed to move in that direction at their individual rate of speed. Entry into the formal medical education system will be a threshold phenomenon based upon certain required examinations and the willingness of the docent team to admit them to the group. Students may enter the program at any level. For example, a Ph.D. in a relevant discipline could transfer into the school and obtain the M.D. degree in approximately two years. A premedical student from another campus could enter at any level appropriate to his ability.

B. *Faculty*
   1. An appropriate group of faculty will be related geographically and educationally to each group of 12 students. The senior docent will be selected for his special educational and professional interests.

      The senior docent will be a team leader and responsible for the selection of the balance of the docent team whose research interests and patient care concerns will be centered upon a particular problem of concern to them personally.

A cadre of trained educators (not necessarily physicians) will be included in the core staff of the medical school and in the docent team where appropriate.

The 16 senior docents for the 400 students, while resembling department chairmen in their numbers, will need careful thought as to organization.

In addition to the classical or customary short term courses of continuing medical education, we plan "in residence" longer-term experience for practicing physicians. The value of these men to the overall teaching program should be considerable, returning as they will be from practice. The visiting teacher-learner program will be a major resource of teaching talent and will be designed so that the continuing education program will be coordinated with the Medical School curriculum.

C. *Curriculum*

1. The student's first year will be spent almost entirely in the Medical School setting containing his office, those of his fellow students and the docent team. In this setting he will be developing:
   a. a perspective of the health care system from the patient's point of view as a member of the community,
   b. a solid and useful relationship to the sources of knowledge necessary for application to the needs of the needs of the patient. This knowledge may be drawn from University departments, clinical disciplines and a variety of information resources.
   c. a true appreciation of the relationship of research to the above-mentioned knowledge and its importance to the advancement of knowledge. Hopefully, many students will develop a continuing relationship and activity in an area of research.
   d. a specific profile for his further education based upon his fund of

THE MEDICAL ADVISORY COMMITTEE TO THE BOARD OF CURATORS, UNIVERSITY OF MISSOURI—COLUMBIA

THE MEDICAL ADVISORY COMMITTEE to the Board of Curators was established at the time the two-year school in Columbia was being expanded to four years. It consists of 18 members, nine of whom are appointed by the Board to serve staggered three-year terms and nine of whom serve ex-officio from the Missouri State Medical Association, the Missouri Academy of General Practice, the Medical Alumni Association, Division of Health, Division of Welfare and Division of Mental Health.

The merit of this cooperative relationship between the Board and the professional community is attested by the rapid growth and outstanding success of the medical school and center in Columbia.

The following statement is from that committee's meeting on Oct. 26, 1969:

"The Medical Advisory Committee to the Board of Curators reaffirms its deep concern over the medical manpower shortage in Missouri. It commends the University of Missouri School of Medicine in Columbia for its substantial contribution to the supply of manpower and the attraction of a substantial number of physicians to key locations, particularly in rural Missouri.

"However, based upon personal observations, the Olson Report and the recommendations of the Commission on Higher Education, the Committee notes that the present classes of 100 physicians each in the school at Columbia still does not meet the need. It agrees that further expansion of that school would not, in the long run, be as beneficial to the University and state as would expansion of the health education programs at the University of Missouri in Kansas City.

"The Committee enthusiastically endorses both the concepts and the approach to the development of medical education in Kansas City. It was particularly impressed with the soundness of the proposed relationship to the community hospitals and the promised economy of the educational program. In the opinion of the Committee, this general concept stands an excellent chance of becoming a national model.

"The Committee strongly recommends to the Board of Curators that in view of the increasing shortage of medical manpower in Missouri, the school in Kansas City should be implemented as rapidly as possible. It recommends to the state and the community that the necessary resources be made immediately available to the University for this purpose."

information, his capacity for learning and a general understanding of his role as a professional.

2. Although individualized by student capability and interest, the student generally will be expected to get from 30% to 50% of his total experience directly in the care system under the supervision of a docent.
3. The evaluation of factual information acquired by students will be done on a challenge examination system. The student will be allowed to progress to more advanced responsibility on an individual basis in accord with his ability to perform both factually and clinically.
4. Experience in the specialties as such, both in basic science and clinical fields, will be required but the selection of fields will be largely left to the student. For this purpose family practice will be considered a specialty.
5. Standards for factual requirements will be worked out by teams of interdiscipline and interuniversity groups.
6. A six-year program from receipt of the high school diploma is envisioned which will coordinate two premedical and four medical years. An average of 280 weeks of instruction will be involved, in contrast to the present seven-year, nine-month-per-year total of 252 weeks. The present application refers to a facility for the four year medical school experience only.
7. During the last four years of this program, the student will maintain outpatient responsibility for patients met during his 12-week general medicine service. He will schedule these patients and maintain office hours as needed to give professional service to his "practice." Specifically, he will continue to follow his "practice" over a four-year period, 48 weeks a year.
8. The curriculum will relate heavily to the community with opportunities provided for learning in community hospitals, neighborhood health centers, the main campus of the University in Kansas City, etc.
9. It is the intent of the University to establish a formal program which will provide instruction for the two premedical years. Such a prehealth science program would offer certain of the subjects usually taught in medical school and which would involve all matriculants in a 12-week "health field exposure" using community hospital facilities and physicians. The preclinical curriculum will serve as a student selection technique, a counseling service, a health manpower resource and a guide for the culturally disadvantaged as well as a conserver of teaching effort by developing health science courses which will serve medical, dental and nursing applicants. This entire program initially will not be required but will be strongly suggested. A student could equally compete for medical school by the usual premedical course of instruction.

D. *Information Resources*

1. This program will draw heavily upon organized research at the University-wide level in information science, "teaching at a distance" and automated factual resources. The develop-

The University of Missouri School of Medicine has enjoyed the strongest possible support from the practicing profession over the past years. Both its faculty and administration look forward with enthusiasm to the possible establishment of the new school in Kansas City.

The new school would provide a three-fold advantage as a way to substantially increase the number of graduating physicians in Missouri. It will provide an urban setting for medical education to complement the rural emphasis of the programs in Columbia. It can capitalize on close educational and service ties with the existing schools of Pharmacy and Dentistry in Kansas City. Finally, it will allow intra-university experimentation with the sharing of medical faculty and resources between two campuses, a necessary step in the evolution of the university's capability to carry education to any place where it may be needed.

We earnestly solicit the same fine support for this new school which has been so generously extended to us in the past.

W. D. MAYER, M.D.
Dean
School of Medicine
University of Missouri—Columbia

ment of a computerized union catalogue of all University library holdings is an example of the work being done at a University-wide level which will be of direct benefit to the type of curriculum and instruction envisioned in this school.

2. Every known and approved method of communication will be utilized to make available to the student-practitioner (at whatever level of education) all needed information on an individualized and immediately available basis. Included are such techniques as the "brief case computerized library," electronic video recording, closed circuit television consultations, "dial-a-consult," computerized fact banks, simulation models (such as SIM-I), educational games, didactors and similar new information devices. The system will be designed to take advantage of the newest communication devices and place a premium upon their incorporation into the program.
3. Since many of these devices will be the basic information modalities used by physicians for their continuing education, it seems appropriate to introduce students to this method of learning as early in their professional education as possible.

E. *Organization and Financing*

1. The dean of the medical school will, in his faculty relationships, relate primarily to the docents. They will negotiate with the clinical affiliates for appropriate educational experiences.
2. The dean will relate administratively to the training of interns and residents through the director of medical education of each affiliated hospital.
3. Each geographic unit of 12 students and their associated docent team will be organizationally self-sufficient, and a microcosm of the University "project approach." Multiple units will be possible, limited in numbers only by space, available docents, and satisfactory clinical affiliate programs. It appears that this approach to the organization of medical education provides for a much more productive use of University resources, thereby making possible the enrollment of much larger classes of medical students with no sacrifice in the supervision of individual students.
4. University financial resources will be allocated by the dean in concert with the docents to defray the costs of medical education incurred in affiliate hospitals, using agreed-up principles worked out between the University and the affiliate. Basic, however, is the concept that only the direct costs of medical education of the candidates for the M.D. degree is the obligation of the University in this arrangement.
5. Staff laboratory space will be a medical school resource and not permanently assigned to a department. As persons join the faculty, a laboratory will be assigned solely on the basis of productivity of the specific person. If he elects to eventually stop research, the laboratory space would revert to the school administrative authority.

F. *University-Community Relationships*

1. In accordance with University-wide policies, every effort will be made to coordinate the programs of the medical school with those of the existing medical school on the University of Missouri—Columbia campus, as well as those programs of the University of Kansas Medical Center. Freedom of movement will be provided for students, faculties and information between these institutions.
2. Community organizations affiliated with the University, by contract, assign all education and teaching (including research) to the University, but the interns, residents and advanced training programs of such organizations will be operated by delegation to the hospital. In contrast, the medical education programs will be directly operated by the University with appropriate cost sharing for direct added costs borne by affiliated institutions due to the education of candidates for the M.D. degree.
3. Affiliated hospitals will be encouraged, in cooperation with the University, to organize their staff and programs

in accord with their own special missions and patient responsibilities. Medical students who enter these affiliated institutions will be expected, during their experiences in those locations, to assume a limited, specially designed level of responsibility recommended by the docent team. A "prescription" for the special needs of each student will be prepared and submitted and a special report on progress will be required at the end of the experience.

Continuing Education Coming Events

Feb. 4	**Conference—Office Pediatrics** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Feb. 5-6	**Diagnosis and Therapy of Cerebral Palsy** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
Feb. 9-10	**Symposium—Cardiac Auscultation** University of Kansas School of Medicine Kansas City, Kan.
Feb. 10-12	**Seminar—Comprehensive Care in Pulmonary Diseases** Menorah Medical Center, Kansas City 64110
Feb. 28	**Physical Therapy for Chest Diseases** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
March 10-12	**Seminar—Oncology; A Curriculum in Cancer** Menorah Medical Center, Kansas City 64110
March 11-12	**Drug Therapy** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
March 16-18	**Symposium—Pediatrics** University of Kansas School of Medicine Kansas City, Kan.
March 18-19	**Care of the High Risk Infant** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
March 23-25	**Symposium—Surgery** University of Kansas School of Medicine Kansas City, Kan.
March 25-26	**Blood Component Therapy** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201

Attend the 112th MSMA Annual Session—April 2-5, 1970

The Council Reports

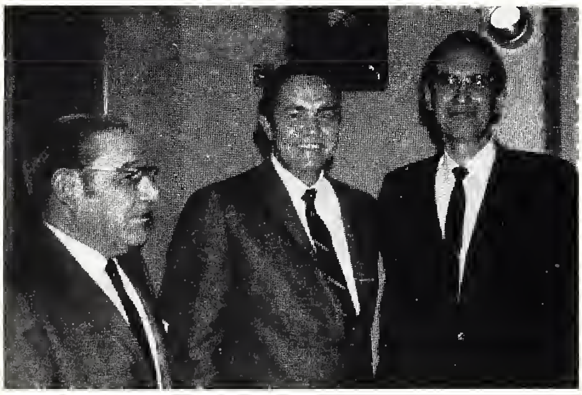
Meeting of Dec. 13-14, 1969

The MSMA Council met at the Downtown Holiday Inn in Jefferson City on Dec. 13-14, 1969 with Chairman Gerald L. Miller, M.D., Kansas City, presiding. Those in attendance were Drs. Miller; John N. Martin, St. Joseph; Lysle M. Bach, Hannibal; Walter T. Gunn, St. Louis; Robert A. Mayer, Clayton; James C. Cope, Columbia; William D. Bradshaw, Clinton; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; Eugene T. Hansbrough, Poplar Bluff; Doyle C. McCraw, Bolivar; Joseph L. Fisher, St. Joseph; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; David N. Kerr, St. Louis; Stanley S. Peterson, Springfield; J. Loren Washburn, Versailles; Hector W. Benoit, Jr., Kansas City; A. W. Neilson, St. Louis; William D. Mayer and William C. Allen, Columbia; William B. See, Columbia; Charles Gulick, St. Louis; Richard W. Yore and Herbert C. Wiegand, St. Louis; Florence E. MacInnis, Kansas City; Flavius Pernoud, St. Louis; Earl G. Padfield, Jr., Kansas City; Richardson K. Noback, Kansas City; Robert Felix, St. Louis; William H. Danforth, St. Louis; Mrs. James Reid, President, Woman's Auxiliary, Marshall; and Messrs. John W. Noble, Kennett; Edgar Mothershead, Clayton; Gary Schnedler, Springfield; Allen D. Smith, Kansas City; T. R. O'Brien, St. Louis; Tom P. Fox, Robert Carroll, Royal O. Cooper and Ray McIntyre, Jefferson City.

REPORT OF THE EXECUTIVE SECRETARY

Mr. McIntyre reported that letters of thanks had been received from Mrs. J. W. Thompson and Mrs. Ben Bull for the flowers sent at the time of the deaths of Drs. Thompson and Bull.

He reported that a request was received from the Conference of Presidents to continue MSMA mmbership in this organization. On motion of Dr. McCraw, duly seconded, it was agreed that this membership be continued.



Their participation in the December Council meeting gave Missouri's four medical school deans an opportunity to visit. (Left to right) Dean Robert Felix, St. Louis University; Dean William D. Mayer, University of Missouri-Columbia; Dean Richardson K. Novack, University of Missouri-Kansas City. Dean William H. Danforth, Washington University, also attended the meeting.

Mr. McIntyre reported that a request was received from the State Chamber of Commerce to continue MSMA membership in that organization. On motion, duly seconded, this was approved.

Mr. McIntyre referred to a letter received from the Missouri Society of Internal Medicine regarding a resolution passed by the Council of the Missouri Society of Internal Medicine and referred to the MSMA Council. The resolution is as follows:

> *Resolved,* That a Resident of the State of Missouri, after his 64th year of age, be required to pass a driver's test in order to have his driver's license renewed prior to the regular renewal date.

Discussion followed regarding whether or not an MSMA resolution of a similar nature should be presented to the 1970 MSMA House of Delegates. After further discussion, it was agreed to refer this resolution to the Committee on Environmental Health.

It was announced that the AMA Committee on Medicine and Religion will hold a regional conference on March 7, 1970 and that a representative of the MSMA Committee on Medicine and Religion be requested to attend. On motion, duly seconded, it was agreed to request Dr. Troy Morgan to attend this meeting with his expenses to be paid by the Association.

It was suggested that the Council redefine its policy regarding the use of the Association's addressograph plates for outside mailings. It was pointed out that an increasing number of requests for such mailing assistance are being received. On motion of Dr. Cope, duly seconded, it was agreed that the addressograph plates of the Association be used only for the business of the Association and in connection with the purposes of the Association.

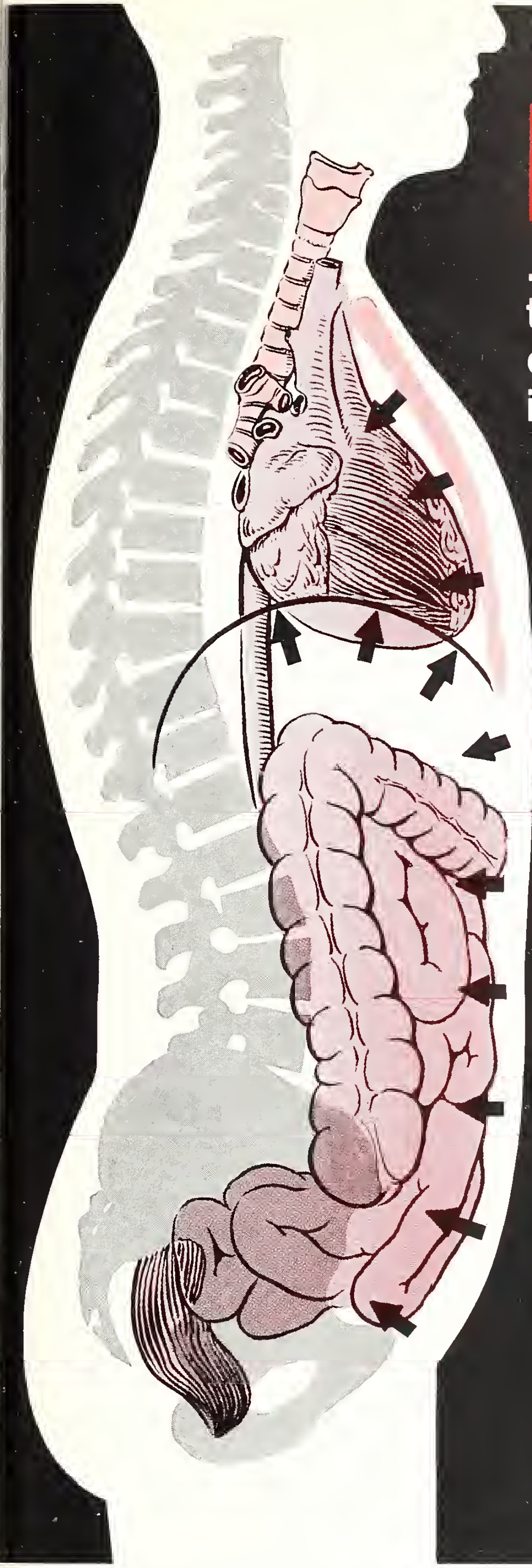
Mr. McIntyre reported that the Association sent letters to Senators Eagleton and Symington requesting their vote to reject a Senate Finance Committee proposal to impose special restrictions on professional corporations. The Senate has rejected the proposal. The Chairman requested approval of the Council minutes of Sept. 6-7, 1969. On motion of Dr. Gunn, duly seconded, the minutes were approved as published.

REPORT OF THE TREASURER

Dr. Franklin presented a detailed account of the Treasurer's Report as of Nov. 30, 1969, copies of which were distributed to the Council. After discussion, on motion of Dr. McCraw, duly seconded, the Treasurer's Report was approved.

Dr. Franklin requested an Executive Session of the Council to consider the 1970 proposed budget to be presented by the Budget Committee. Following consideration of the Budget Committee's recommendations and on motion of Dr. McCraw, duly seconded, the following budget was approved for 1970:

Salaries	$109,600.00
Furniture and Fixtures	1,000.00
Office Rent and Lights	7,680.00
General Expense	2,600.00



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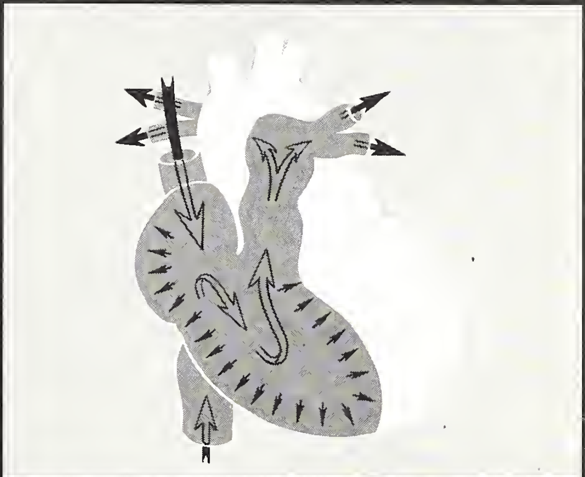
...to reduce the hemodynamic "bind" of constipation in congestive heart failure

Constipation in the chronic heart failure patient carries with it the ever-present threat of acute cardiac decompensation while straining at stool. In the already weakened, distended heart, a sudden influx of blood on termination of the Valsalva maneuver is considered to be the mechanism of some of the deaths occurring in these cardiac patients during straining efforts.*



Doxidan is a gentle laxative designed to free your patient from the hemodynamic consequences of straining at stool. With a fecal softening agent to keep the stool soft and easy to evacuate, and with just enough peristaltic stimulation to urge the sluggish bowel, Doxidan reduces the hemodynamic "bind" of constipation.

Composition: Each capsule contains 50 mg. danthron N.F. and 60 mg. dioctyl calcium sulfosuccinate.

Dosage: Adults and children over 12—one or two capsules daily. Children 6 to 12—one capsule daily. Give at bedtime for two or three days or until bowel movements are normal.

Supplied: Bottles of 30, 100 (FSN 6505-074-3169) and 1000 (FSN 6505-890-1247).

est, C. H. and Taylor, N. B.: *The Physiolog-cal Basis of Medical Practice*, 7th edition, illiams and Wilkins, Baltimore, 1961, p. 480.

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Office Supplies	3,500.00
MSMF Assessment	35,820.00
Postage	3,500.00
MSMF Expenses	2,500.00
Journal Expenses	38,500.00
Equipment, Rentals, etc.	2,200.00
Telephone and Telegraph	5,300.00
Pension Expenses	25,427.00
Permanent Investment Fund Allocation	4,000.00
Legal and Professional	7,500.00
Taxes and Payroll	3,775.00
Travel Expenses	6,000.00
Meetings and Committee Expense	28,500.00
Annual Session	17,000.00
TOTAL	$304,402.00

Chairman Miller introduced Mrs. Pat Reid, President of the Woman's Auxiliary and welcomed her to the meeting. He stated, in response to her letter, that the Council had voted unanimously to accept any refund of the Association's fund grant after the Auxiliary's Annual Session.

REPORT OF INTERSPECIALTY COMMITTEE

Dr. Gulick, Chairman of the MSMA Interspecialty Committee, reviewed the minutes of a meeting held in Jefferson City on Nov. 16, 1969, stating it was the first full meeting of the Interspecialty Committee since the Annual Session in March. He said he had received several committee reports, which were referred to the committee for information only, and the report of the Ad Hoc Committee to Study a New Level of Medical Practitioner, which was referred to the Interspecialty Committee for study and recommendation.

Dr. Gulick stated that the Committee was very interested in Dr. Edwards' Ad Hoc Committee report and felt that this is an area that should be developed, but that first the practitioner we are proposing needs to be defined in terms of what he will do and the training required. It was suggested that each member of the Committee should meet with his specific group and discuss this point before the Interspecialty Committee meets again. It was suggested that a type of questionnaire might be developed so that each specialty could be asked more specific questions, rather than just being asked for their opinions. Dr. Gulick stated that the Committee definitely needed a better understanding of the person to be trained, the training requirements and the legal implications. He reported that the Committee is in favor of further study of this report.

Dr. Gulick reported that the Interspecialty Committee has studied the proposed reorganization of the committee structure of MSMA as recommended by the special Long-Range Planning Committee, which was unanimously approved by the Interspecialty Committee.

Dr. Gulick stated he had received a request that a representative from the Joint Missouri Council of the American Psychiatric Association represent psychiatry on the Interspecialty Committee instead of a representative from the Missouri Academy of Psychiatry. It was pointed out that the Eastern and Western Missouri Divisions of the APA have formed a statewide council which will adequately represent the psychiatrists in Missouri on the Interspecialty Committee.

Discussion followed regarding the new level of practitioner and what types of programs the universities have in regard to this problem. Dean Mayer of the University of Missouri described the work of their Allied Health Training Programs. He said they have approximately 200 students in these training programs and the faculty is now taking a good look at the existing programs with the intent of better training these students to fit needed allied health care activities.

Dr. Felix of St. Louis University reported that their Allied Health program is in connection with the School of Nursing.

Following discussion, Chairman Miller charged the Interspecialty Committee to further study this new level of practitioner proposal and present more specific recommendations to the Council for the development of such a program.

On motion of Dr. Kerr, duly seconded, it was recommended that, in view of the Long-Range Planning Committee proposal which was approved, this portion of the Interspecialty Committee report to be referred to the Constitution and By-Laws Committee to study and to make a report to be submitted to the House of Delegates for a change in the Constitution and By-Laws at the next annual session.

On motion, duly seconded, the report of the Interspecialty Committee was approved.

COUNTY MEDICAL SOCIETY OFFICER'S CONFERENCE

Dr. Walter Gunn, Chairman of the Public Service Committee, gave a brief run-down on the program developed for the Annual County Societies Officer's Conference which will be held at the Ramada Inn in Jefferson City on Jan. 31-Feb. 1, 1970. He urged the Councilors and Officers to make every effort to attend and also to urge the Society officers in their districts to attend this most interesting and educational program. He pointed out that all members of the Associations are invited.

REPORT OF THE OSTEOPATHIC LIAISON COMMITTEE

Dr. McCraw stated that the Executive Committee of MSMA had met with a similar committee of the Osteopathic Association on Friday evening, Dec. 12, 1969. He said it was the first official meeting of this group and some progress was made in certain areas. They discussed the need for updating the Medical Practice Act and suggested that a joint committee, including the Board of Healing Arts, be named to study this matter. They also discussed the need for some requirement to stimulate all physicians to participate in continuing medical education. The group reviewed certain health bills considered in the 1969 Missouri General Assembly and discussed bills which may be introduced in the 1971 session. It was agreed to have a small committee appointed representing the MSMA, the Missouri Association of Osteopathic Physicians and Surgeons and the State Board of Healing Arts to further consider mutual problems.

A general discussion was held relating to osteopathic graduates taking part in AMA-approved intern and residency training programs as well as Doctors of Osteopathy becoming members of medical societies.

COUNCILOR DISTRICT REPORTS

Dr. Martin of the First District reported that Buchanan County Medical Society held an interesting joint meeting with the lawyers of the area recently.

Dr. Gunn of the Third District urged the Council to consider adequate financial support for the MSMA Environmental Health Committee of which Dr. Neilson is Chairman. He also reported that Dr. Neilson has been appointed as a member of the AMA Council on Environmental and Public Health.

Dr. Mayer, Fourth District, reported that he had attended a meeting of the Lincoln-St. Charles County Medical Society and the Society had requested that its name be changed from Lincoln-St. Charles to St. Charles-Lincoln County Medical Society. On motion of Dr. Mayer, duly seconded, it was agreed that this change be made. Dr. Mayer also reported that a $500 donation had been sent to the Missouri State Medical Foundation from that Society recently. He also reported that St. Louis County Medical Society had accepted joint billing.

Dr. Cope, Fifth District, reported that the bond issue for additional construction at the Boone County Hospital had been defeated for the third time and that it was practically impossible to get a two-thirds vote.

Dr. Bradshaw, Sixth District, reported on the opening of a new hospital in Osceola and said that Henry County has started construction on a new hospital. He reported that the Sixth Councilor District will hold a District meeting in Warrensburg on January 14. The guest speaker will be Dr. E. Gray Dimond of Kansas City.

Dr. Miller, Seventh District, reported that the Jackson County Medical Society Annual President's dinner will be held on Jan. 29, 1970, with the president of SAMA as the speaker. He also reported that the Four County Area Medical Council had sent telegrams to Senators Symington and Eagleton in regard to Senate consideration of a tax proposal for professional corporations.

Dr. McAlhany, Eighth District, reported that a brochure promoting Springfield had been prepared by Greene County Medical Society for distribution to medical schools and others. He distributed copies of the brochure. He stated that Comprehensive Planning is getting under way in Greene County and three physicians have been appointed to the Governing Board to help guide the program. He reported that OEO has three Health Centers in Springfield and a workshop meeting is being planned to discuss this problem. He reported on the annual Orientation Program of Greene County for new members which was held last month and was very well received. He urged other Societies to have similar meetings to help new members in their practice and acquaint them with the functions of their medical societies.

Dr. Stricker, Ninth District, reported that at the last meeting of their local medical society Dr. Sherwood Baker and his group gave an interesting talk on Medical Preceptorships.

Dr. Hansbrough, Tenth District, reported that the October Southeast Missouri Cancer Conference had a good attendance, the Regional Medical Program had a meeting in Sikeston on Dec. 4, 1969 and Comprehensive Health Planning wants to hold Regional Meetings. He also reported that he had attended the Kentucky State Medical Association meeting and gave an interesting report on several phases of their program.

REPORT OF THE PRESIDENT

Dr. McCraw stated that he had visited 14 county medical societies since the last Council meeting, and had enjoyed his visits in various Districts over the state and still has a few more visits to make.

REPORT OF THE PRESIDENT-ELECT

Dr. Fisher reported that he had attended a meeting in Indianapolis relating to Voluntary Health Organizations. He suggested that MSMA give thought to better liaison with such groups and give guidance where needed. He stated that a similar meeting of this type in Missouri might be quite valuable in promoting liaison between these Health Organizations which influence, to some extent, ancillary services of medicine. Dr. Kerr mentioned that the AMA has had a Council on National Voluntary Health Agencies and that Dr. Wendell Scott of St. Louis is a member of this Council which sponsored the Indianapolis Conference.

REPORT OF THE MATERNAL WELFARE COMMITTEE

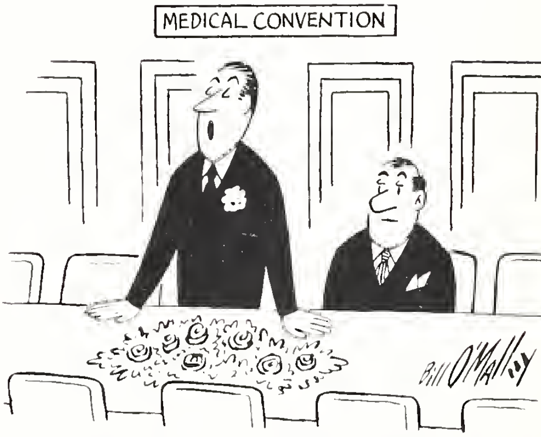
Dr. See, Chairman of the MSMA Maternal Welfare Committee, reported on the committee's program for the 1970 Annual Session on Friday, April 3, at 11 AM, with Dr. Keith Russell speaking on "Endotoxic Shock." Dr. Russell also will be a guest at the Maternal Welfare Luncheon that same day and will participate in the discussion of maternal death studies.

Dr. See reported that the Committee met on Nov. 2, 1969, with eight members and four guest present. The Committee recommended a change in the Missouri Abortion Law which was approved by a vote of seven to one. The recommendation is that the present law be repealed and changed to read: "An Abortion should be considered illegal if performed by anyone other than a licensed physician in a place other than a licensed hospital."

The Committee also voted to recommend that legislation be sponsored to provide for the immunity of Maternal Mortality Study Committees, Tissue Committees and Medical Audit Committees from professional liability suits or other litigation.

Dr. See reported that the deletion of the question, "Was this patient pregnant or has she been pregnant in the last 90 days," from the current Missouri Death Cer-

(Continued on page 124)



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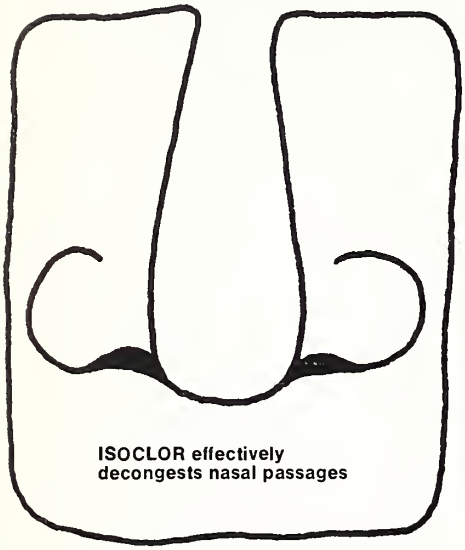
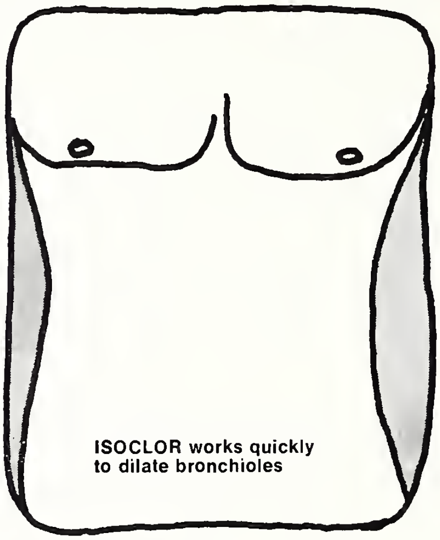
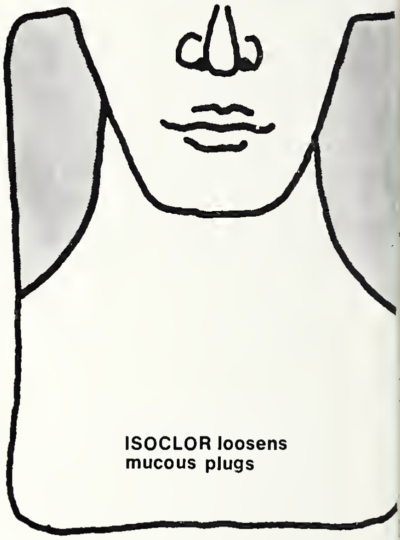


ISOCLOR effectively decongests nasal passages

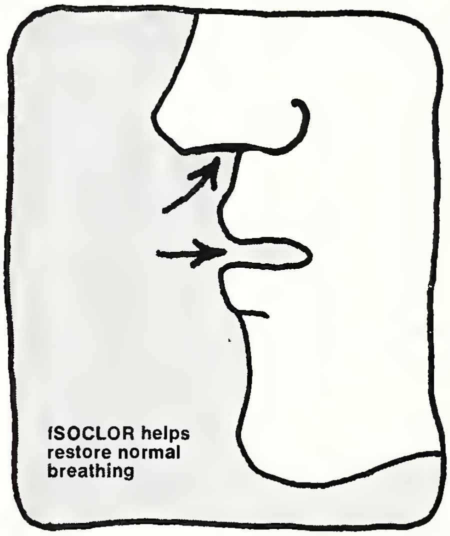


ISOCLOR works quickly to dilate bronchioles



ISOCLOR loosens mucous plugs

ISOCLOR relieves runny eyes



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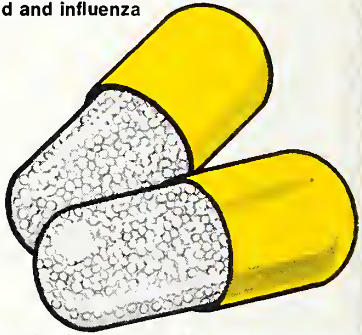

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SUPPLIED: Tablets: Bottles of 100 and 1000. Liquid: 4 oz. bottle
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Adults:	1 q. 4 h.	2 tsp. q. 3-4 h.	1 q. 12 h
Children 6-12 years:		1 tsp. q. 3-4 h.	
40-50 pounds:		¾-1 tsp. q. 3-4 h.	
30-40 pounds:		½-¾ tsp. q. 3-4 h.	
20-30 pounds:		¼-½ tsp. q. 3-4 h.	
15-20 pounds:		⅛-¼ tsp. q. 3-4 h.	

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WASHINGTON

The Internal Revenue Service postponed until next January 1 one provision of a new requirement that health insurance companies report to the IRS payments of $600 or more a year to a physician.

The delayed provision covers payments other than under Medicare and Medicaid. Payments of $600 or more under these government programs must be reported to the IRS. A spokesman said the reporting of payments other than under the government programs was delayed for a year to allow further time for working out compliance procedures.

The IRS regulation applies only to direct payments to physicians. The Senate added an amendment to an omnibus tax bill that would have extended the requirement to indirect payments, also. But House-Senate conferees took out the amendment.

Another provision unfavorable to physicians was knocked out of the tax bill, but a third was retained.

The Senate rejected a proposal that would have restricted the tax advantages gained by physicians who organize professional corporations under state laws to establish retirement plans. The Senate Finance Committee had added an amendment that would have set an annual limit of $2,500 per individual, the same as specified under the so-called Keogh law. But the Senate, by a vote of 65-25, knocked out the amendment, leaving physicians, lawyers, engineers and other members of professional corporations able to set aside as much of their income for retirement as they choose.

As finally passed by Congress, the measure includes a provision putting congressional approval on an IRS ruling that advertising revenue of medical and other nonprofit, tax-exempt organizations is subject to the regular corporate income tax. Journals of state medical societies, as well as the *Journal of the American Medical Association*, are affected.

* * *

Medicare's Part B premium partially covering physicians' fees will go up from $4 to $5.30 a month next July 1.

Health, Education and Welfare Secretary Robert H. Finch blamed his predecessor in the post, Wilbur J. Cohen, for the size of the 32% increase in the premium which is matched by the federal government.

Finch noted that the present $4 premium rate, set in December, 1968, was too low to cover costs during the current premium period and that the special Medical Insurance Trust Fund has been drawing on its reserves. He said that failure to increase the premium rate last December, in accordance with advice from Social Security Administration actuaries, had made it necessary now, in effect, to promulgate two increases at once. Moreover, the depletion of the trust fund that has occurred because of the inadequate rate had made it necessary, he said, to provide for a somewhat higher margin of contingency than would otherwise be necessary.

About half the increase, 64 cents, was needed to finance the program at the level of current operations. The other 66 cents of the $1.30 increase was distributed as follows:

—26 cents to cover an estimated increase of about 6% in the level of physicians' fees;

—about 12 cents to cover an estimated increase of 2% in the utilization of services under the program;

—about 6 cents because the $50 deductible which a patient pays will be a smaller proportion of the total covered charges;

—the remaining 22 cents to provide a 4% margin for contingencies.

* * *

The Food and Drug Administration was reorganized and given independent status under a new commissioner.

The reorganization followed several years of criticism of the Health, Education and Welfare Department agency from all sides—Congress, industry and consumers' groups. The criticism resulted in a two-month study by a task force

Attend the 112th MSMA Annual Session—April 2-5, 1970

headed by HEW Deputy Assistant Secretary for Welfare Fred Malek.

The reorganization focused on FDA's structural problems and the chief aim of HEW Secretary Robert H. Finch appeared to be to get the agency operating more efficiently. FDA was taken out of the Consumer Protection and Environmental Health Service and placed in the department's staff structure on an equal basis with the remaining Environmental Health Service and the National Institutes of Health.

Dr. Charles C. Edwards, 46, formerly a division director on the American Medical Association headquarters staff, was named to replace Dr. Herbert L. Ley, Jr., as head of the FDA. Ley was offered another post in HEW but declined it. Two of Ley's top aides, FDA Deputy Commissioner Winton B. Rankin and Associate Commissioner for Compliance J. Kenneth Kirk, were transferred from the agency.

Edwards was praised by a former associate on the AMA staff, C. Joseph Stetler, president of the Pharmaceutical Association, as being highly qualified by his scientific and administrative background.

The new FDA head said he would bring "hard-nosed management principles" to the agency and work more closely with industry, but that his administration of FDA would be oriented to the consumer. He said his decisions as a government official will not be influenced by his former association with the AMA.

AMA Announces 1970 National Conference on Rural Health

The 23rd National Conference on Rural Health, sponsored by the AMA Council on Rural Health, is scheduled for April 9-10, 1970, at the Pfister Hotel and Tower in Milwaukee, Wis.

Goals of the Conference are to develop planning methods for community health services, to deliver these services in rural areas, to assess the effect of environmental factors on health, safety and well-being of rural residents, to understand the socioeconomics of health-care delivery and to review methods for efficient utilization of health resources.

Attendance at the Conference is acceptable for ten prescribed hours of credit by the American Academy of General Practice.

The 1971 Conference will be held March 26-27 at the Marriott Motor Hotel in Atlanta, Ga.

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- otitis
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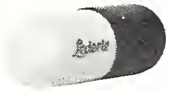

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Notes of interest from Here . . . . and There

Three Missouri physicians have been elected to offices in the Southern Medical Association. **Dr. Lester E. Wolcott**, Columbia, was elected Chairman of the Section of Physical Medicine and Rehabilitation; **Dr. Ian M. Thompson**, Columbia, was chosen Secretary for the Section on Urology; and **Dr. Vincent P. Perna**, St. Louis, was elected Chairman of the Section on Pathology. Each officer will be responsible for arranging the program for his committee for the 64th Annual Meeting of the Association on November 16-19 in Dallas, Tex.

Dr. Eugene G. Hamilton, St. Louis, has received the St. Louis Medical Society's Award of Merit which is given in recognition of meritorious effort by a St. Louis physician when that effort promises to result in great benefit to the progress of medicine. Dr. Hamilton received the award for his work in preventing birth complications after the first pregnancy when the mother has Rh negative blood and the father has Rh positive blood.

Dr. James M. Whittico, Jr., St. Louis, Immediate Past-President of the National Medical Association, has been appointed as consultant to the Division of Physician Manpower in the Bureau of Health Professions Education and Manpower Training, National Institutes of Health. The Division of Physician Manpower provides a federal focus for programs dealing with the nation's physician manpower resources.

Dr. Henry E. Oppenheimer, Associate Professor of Clinical Medicine, St. Louis University, participated in a three-day workshop in Diabetes of the American Medical Association Clinical Session held in Denver, Colo. on Dec. 1-3, 1969.

Dr. George T. Gafney, St. Louis, a member of the medical staff at St. John's Mercy Hospital, received the Mercy Award from the Religious Sisters of Mercy for outstanding service to the hospital and to the healing arts.—**Dr. Louis P. Hetlage**, Troy, was named "Man of the Year" by the Troy Chamber of Commerce. Among his other contributions to the community, it was stated that "Dr. Hetlage has brought recognition to Troy in many ways, especially through his profession, as he has in the past and is at present serving on committees and boards at local, area, state and national levels."

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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T. S. WILKINSON, M.D. *and* **F. X. PALETTA, M.D.,** *St. Louis*

Innovations in the Care of Burned Children

The care of the burned child has undergone dramatic changes in concept and in available materials in the past decade. In the modern burn care center, the services of plastic surgeons, physiotherapists, dietitians, psychologists and psychiatrists, pediatricians, anesthesiologists and others are fully utilized in a team approach. The experience at the Cardinal Glennon Memorial Hospital with more than 600 burns has illustrated the value of this comprehensive care. Survivals in all age groups and burn percentages have been consistently above expected mortalities.[1] The physical and mental well-being of the burned child is a direct result of intensive and personalized care. In concordance with our policy of obtaining the earliest skin coverage possible, we have utilized several new materials and techniques. We believe that a number of the innovations may be of use to other physicians who care for burns. These are detailed below.

Burn Boats

The development and utilization of the "burn boats" are based on a fundamental axiom of burn care in children—the avoidance of repeated general anesthesia.

All children admitted to the Burn Center are treated initially by the closed method with the exception of those with perineal and facial burns. These are left open to room air and are cleansed thrice daily with soap and water and saline compresses. Xeroform® gauze, a vaseline-based topical antibiotic preparation, is used initially under multiple layers of sterile dry gauze for other burned areas. This dressing is left undisturbed for one to three days, and then is replaced by a layered dressing which is changed daily. Saline alone is employed in the inner layers, providing a "wet-to-dry" dressing. The outer layer is of Kling® gauze, rather than elastic bandage, to facilitate free evaporation. The capillary action is responsible for removal of exudate from the wound surface into the dressing.

Should these dressings be changed under anesthesia, the child would be deprived of feed-

During the past ten years, changes in concept and materials have been introduced in the comprehensive care of the burned child. The authors describe in detail the utilization of new materials and techniques to obtain the earliest skin coverage possible while avoiding repeated general anesthesia. Dr. Wilkinson is from the Department of Plastic Surgery, St. Louis University Hospitals and the U. S. Veterans Administration Hospitals and the Burn Unit of Cardinal Glennon Memorial Hospital for Children. Dr. Paletta is Professor of Clinical Surgery and Chairman of the Division of Plastic Surgery, Department of Surgery, St. Louis University School of Medicine and School of Dentistry.

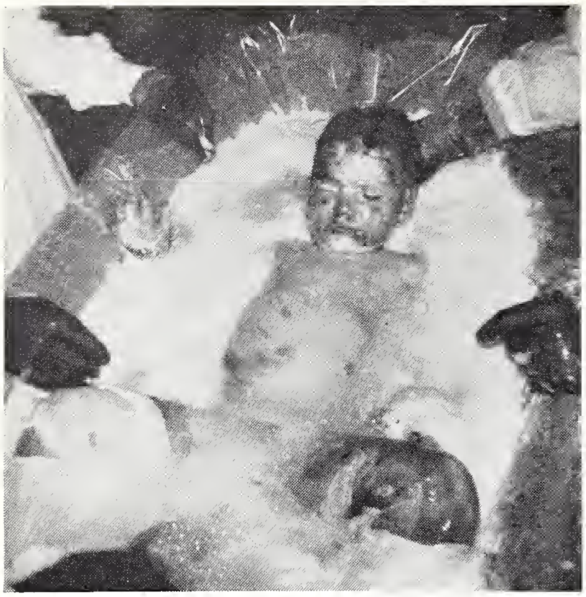

Fig. 1 Immersion of the burned child in a "burn boat." Note disposable plastic film liner.

ings from six to 12 hours before surgery to diminish the risk of aspiration and for many hours thereafter. We have found that caloric intake is minimal for a period of 24 to 48 hours. Therefore, all dressing changes are done without anesthesia. To diminish pain, the dressings are presoaked in the "burn boats."

The "burn boats" (Fig. 1) fill the need for a moveable, easily stored, soaking apparatus for ward or room use. For smaller children, a wading pool "boat" has proved ideal. For larger children, the deflatable, round wading pool (Fig. 2) is used. The latter is mounted on a slanted roller table with attached suction pump apparatus.

Prior to each dressing change, the appropriate size "boat" is lined with a disposable plastic sheet and filled with warm tap water and mild soap. Table salt is added in amounts calculated to give a 0.9% NaCl solution. Hexachlorophene soap is no longer used due to recent reports of toxicity from surface absorption. After the dressings are saturated, they are removed, causing little or no pain. Adequate calorie intake can easily be achieved, and with proper psychologic support during dressing changes, emotional stability is maintained. The old dressings together with the eschar are enveloped in the plastic sheet and both are incinerated, thus avoiding crossover of organisms between patients.

Mesh Grafting

The mesh dermatome technique was developed by Tanner[2-4] in 1964 and has rapidly gained clinical acceptance. Recent mechanical improvement has largely eliminated early problems with the meshing of the skin graft. By converting a sheet of split thickness skin to a "mesh-graft," a threefold increase in area coverage can be obtained. More importantly, there is a tremendous increase in skin edges. Each edge of the diamond grows centrally until the expanded mesh is a solid sheet again (Fig. 3).

We have found that, cosmetically, the mesh grafts are usually unsatisfactory. In large burns, however, they may be lifesaving. It may be argued that the cosmetic result of sheet grafts applied in a second- or third-staged procedure also is unsatisfactory due to the same hypertrophy of underlying granulation tissue. Certainly, the incidence of contractures are decreased and the cosmetic effect is vastly improved when all of the burned area is mesh grafted early in its course. Lastly, the donor sites are never invisible. With mesh grafting, fewer donor sites are required.

We have used the mesh grafts for several special circumstances. When a young girl sustains

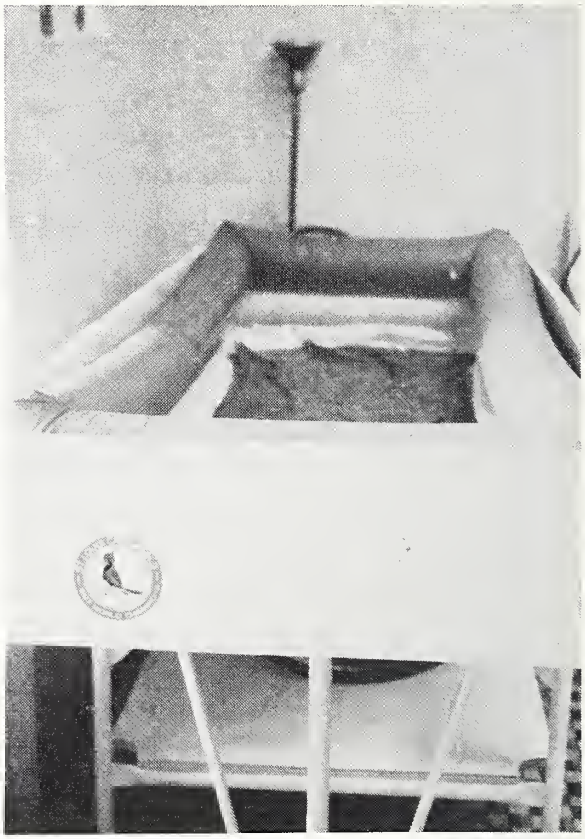

Fig. 2 Collapsible table containing wading pool "boat" for larger children.

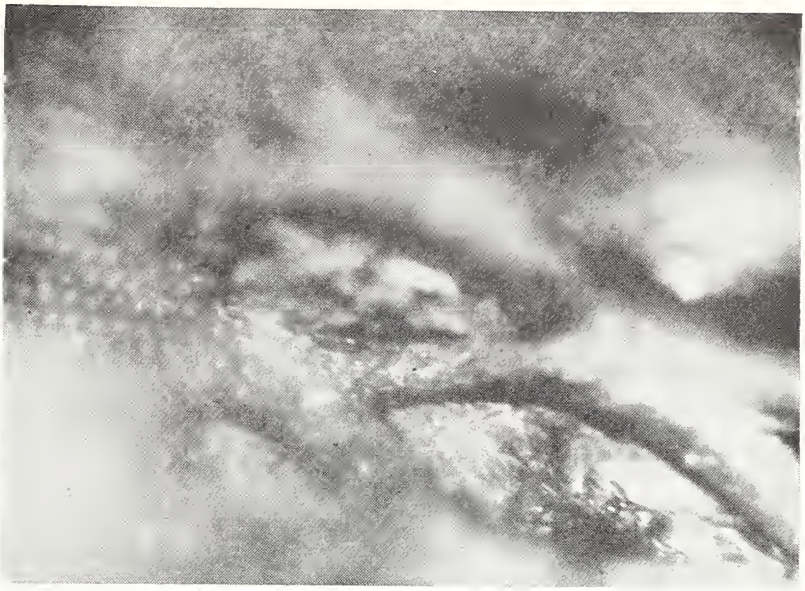

Fig. 3 Meshed skin graft showing extension of epithelium from cut edges of the diamonds.

burns within the bathing suit coverage area and insufficient gluteal skin is available, the mesh graft expansion has allowed us to cover the burns without resorting to donor sites in exposed areas. Secondly, the mesh graft, by virtue of its lack of interference with free drainage, is ideal for immediate application to debrided burns. It as been our policy to excise eschars and unhealed burns after the 14th postburn day. Early grafting thus shortens hospitalization, reduces the incidence of contractures[5] and sterilizes the burn wound. Thirdly, we have found excellent takes of mesh grafts in badly contaminated wounds in which sheet grafts or stamp grafts have been floated away by exudates.

Nonsuture Immobilization of Skin Grafts

Successful skin grafting in burns depends on a number of factors that include nutritional status, proper graft tension, avoidance of retained secretions and adequate immobilization. The latter is of great importance when the condition of the recipient bed is less than ideal due to sepsis or recent debridement. It is of prime importance in grafts of children and in mesh grafting. Constant body motion may defeat even the most carefully applied pressure dressings. Therefore, we have developed one means of graft immobilization particularly useful in mesh grafting, the lattice tape preparation. Other methods, including methyl and isobutyl cyanoacrylate monomer glue (Ethicon) and various skin tapes (3-M Co. and Ethicon), have been evaluated in our clinical and laboratory series. Each has demonstrated higher "take" percentages than controls in which pressure dressings alone were utilized.[6]

The nonsuture immobilization of grafts has as its main advantage the decrease in operating time. Comparable grafts may be immobilized by these methods in one tenth of the time required for suturing. Other distinct advantages are in the application and immobilization of homografts without anesthesia and in delayed grafting of debrided burns, again without anesthesia. An eschar may be debrided and the skin graft obtained under anesthesia, then the graft applied to the recipient site 24 hours later when oozing of blood has ceased. No anesthesia is required when nonsuture immobilization is employed.

We have found that the self-sterilizing, polymerizing liquid tissue adhesives have their major application in maintaining expansion of sheet grafts and mesh grafts. The elasticity of the skin largely prevents motion of the central positions when the graft is fully expanded. The adhesives are applied only to overlapped graft and donor site cornified skin because of the inflammatory response they cause in granulation tissue or graft beds. Graft necrosis will result if the adhesive is applied centrally. Sutures, with resulting hemorrhage, may be employed in these central zones or other means may be utilized. When the mesh graft is not fully expanded, the fragility of the central parts is marked. For this reason, the lattice tape preparation was developed (Fig. 4).

Strips of micropore paper tape (3-M Co.) or rayon taffeta tape (Ethicon), measuring 3

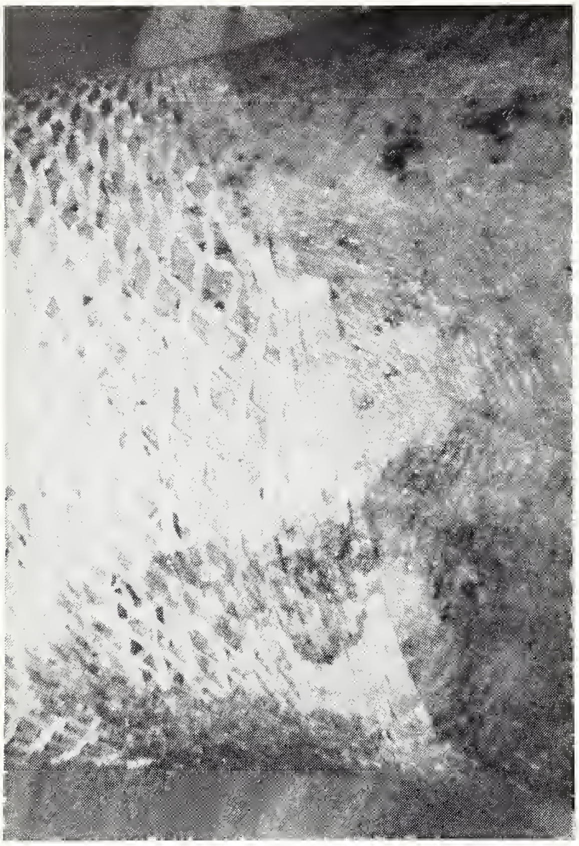

Fig. 4 Lattice tape preparation covering and immobilizing a mesh graft of an extremity.

inches x 12 inches, are processed through the Zimmer meshgraft dermatome. One half of the backing is peeled away from the tape and the paper tape is stuck to and folded over a used dermacarrier. After processing through the dermatome, the lattice is expanded and applied. Contact and immobilization thus are possible over all areas of the graft. The lattice tape may overlap donor skin at several points or may be wrapped around an extremity and taped to itself. This is of particular advantage in wide burn beds or circumferential extremity burns, for which graft to recipient skin overlap is limited to one edge.

Mesh grafts "takes" in excess of 90% were found in the first clinical series (20 cases) employing lattice tape.[7] One partial failure occurred when the lattice was used on the trunk of an active child. Shear forces transmitted by asynochronous twisting of hips and shoulders lifted the graft from the bed by virtue of its stronger attachments to the tape. Subsequent experience with the tapes has confirmed the effectiveness.

The micropore paper lattice tapes are easily removed at 72 hours after a preliminary soaking in a "burn boat" (Fig. 5), whereas the rayon taffeta lattice is adherent for a longer period. The tapes protect the underlying graft from direct trauma or dressing shifting. After removal, the grafts are usually sufficiently adherent to the recipient bed to no longer require this protection.

The tissue adhesives and lattice tapes also are of advantage in avoiding local anesthesia requirements when recipient sites are small. These minor deep burns may thus be grafted using local anesthesia at the donor site alone at a considerable saving of discomfort for the patient.

SPLINTING AIDS

Two types of readily obtainable materials are quite useful in extremity splinting during the

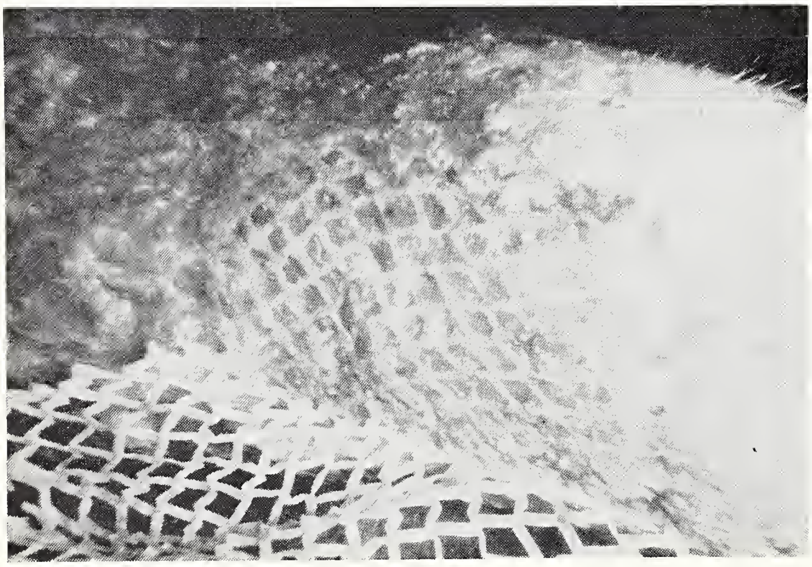

Fig. 5 Removal of lattice tape at 72 hours reveals a complete take of underlying meshed skin.

acute or reconstructive phases of burn care. These are industrial packing sponges and isoprene plastic.

Packing sponges in several sizes are useful for protecting axillae, separating fingers and for hand positioning and exercisers (Fig. 6). Gas sterilization has proven satisfactory in our experience. A supply of 2 inch tubular sponges is made available in emergency rooms for incorporation into dressings of second degree hand burns. The resiliency maintains the position of function yet the child can be encouraged to move all digital joints by massaging the sponge. The frequently encountered excessive firmness of balled fabric dressing sponges in the palm is avoided. The same principle applies when the larger oval sponges are placed in the axilla or popliteal space under extension splints.

Isoprene plastic (Johnson and Johnson) may be molded to a joint or hand after hot water immersion. The minimal weight, aeration holes and adaptability are advantages not duplicated in plaster of paris splints. All burns across joint spaces are splinted in extension in the acute phases and for prolonged period after grafting to minimize contracture formation.

SUMMARY

The total care of the burned child involves many disciplines and diverse modalities. Our experience has led us to recommend a number of innovations which have proven to be of value. The mesh skin graft and nonsuture immobilization of these grafts have been advantageous in obtaining early skin coverage with minimal operating time. The immersion of dressings in "burn boats" facilitates dressing changes without the use of general anesthetics. Lastly, industrial padding sponges and isoprene plastics are useful in dynamic and static splinting in the prevention of contractures.

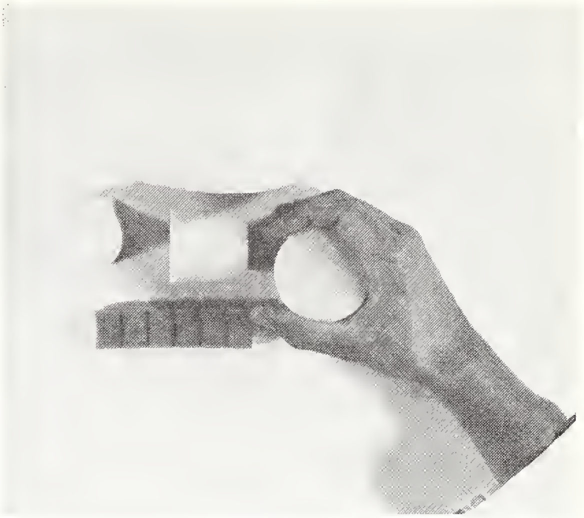

Fig. 6 Industrial sponges are excellent padding for many body regions.

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Missouri Society of Pathologists to Present Slide Seminar

The Missouri Society of Pathologists will present a slide seminar on lesions of the central nervous system with John Kepes, M.D., Professor of Neuropathology, University of Kansas, as moderator at 9 AM on April 4 at the Veterans Administration Hospital in Kansas City. Presentation will be concurrent with the Annual Session of the Missouri State Medical Association. Slide sets and case histories can be obtained for $15.00 by writing to David L. Zacharias, M.D., St. Joseph Hospital, 2510 East Linwood Boulevard, Kansas City, Mo. 64128.

SANTOSH K. MOHANTY, M.D., PRATHAPCHANDRA REDDY, M.D.
and **JOHN W. POLK, M.D.,** ***Mt. Vernon***

Acute Small Bowel Obstruction From Disseminated Histoplasmosis

Case Report

The purpose of this paper is to present what is believed to be the first case report of acute small bowel obstruction secondary to disseminated histoplasmosis. The authors are from the Missouri State Sanatorium where Dr. Mohanty is Senior Resident in Thoracic Surgery, Dr. Reddy is Staff Physician and Dr. Polk is Chief of Surgical Service.

Even with the greater recognition of histoplasmosis as a disease of protean manifestation, gastrointestinal involvement is not common. No accurate tabulations of gastrointestinal involvements in disseminated histoplasmosis are available. Many gastrointestinal involvements obviously would be missed unless the patient came for surgery or for autopsy. Nevertheless, this system involvement is coming to be known more frequently and is known to have produced symptoms of acute condition within the abdomen of varying severity. Granulomatous involvement of the small bowel due to tuberculosis, coccidioidomycosis and actinomycosis producing stenosis and intestinal obstruction are well recognized. To our knowledge, no description of complete small bowel obstruction from histoplasmosis has been reported.

Most of the early reports of gastrointestinal histoplasmosis have demonstrated the occurrence of granulomatous inflammation with mucosal ulceration, hemorrhage and perforation as the presenting feature. Although fibrous tissue formation with varying degree of stenosis is the usual end result of such affection, it is surprising that no such affection of small bowel obstruction is reported in the literature. The basis of the following presentation is to report a case of acute small bowel obstruction secondary to disseminated histoplasmosis.

Case Report

A 40-year-old farmer entered the Missouri State Sanatorium on July 20, 1966 with the complaints of loss of appetite, a 15 pound weight loss and weakness of voice. The duration of the symptoms were for four months and the onset was insidious. The patient was received as a transfer from another hospital where an indirect laryngoscopic examination showed a mass in the vicinity of the right vocal cord. Biopsy of this mass was read as histoplasmosis of the vallecula. The symptoms were progressive and the voice was reduced to a whisper. The other symptoms were dysphagia to solid foods and fullness of epigastrium for about two months. Past and family history were noncontributory.

The physical examination showed a moderately built man who appeared to be acutely ill. His pulse rate was 100 beats per minute with regular rhythm, temperature was 99 F (37.2 C) and respiration rate was 25 per minute. Blood pressure was 90/60 mm of Hg. Examination of the chest revealed several wheezes over the left base along with a few crepitations. The abdomen was slightly protuberant; no mass was palpable. Liver, spleen and kidneys were not felt. Rectal examination was within normal limits.

Laboratory studies disclosed the following values: Hemoglobin, 8.8 gm/100 cc; hematocrit, 25%; 6% white blood cell count (WBC), 10,000 with 68% neutrophils; 14% bands; 12% lymphocytes; and 6% monocytes. Urinalysis showed no sugar or albumin, occasional white cells and some granular casts were present. The fasting blood glucose was 85 mg/100 cc. The blood urea nitrogen (BUN) was 35 mg/100 cc. Serum sodium was 110 mEq/liter; potassium was 5 mEq/liter and chloride was 87 mEq/liter. The venereal disease research laboratories test for spyhilis (VDRL) was nonreactive. Purified protein derivative (PPD) and histoplasmin skin tests were negative. The complement fixation for the histo mycelial titre was positive in titers of 1:128, and the histo yeast titre was 1:256. The urine culture for AFB and Histoplasma capsulatum were negative on several examinations. The spinal fluid also did not grow any acid fast bacilli (AFB) or Histoplasma capsulatum. Eight weeks after admission, total serum protein was 5.5 gm/100 cc with albumin of 3.3 gm/100 cc and globulin of 1.75 gm/100 cc. One sputum culture grew Histoplasmin capsulatum. The chest x-ray did not show any significant pulmonary disease (Fig. 1).

Hospital Course: After the initial treatment with cortisone, desoxycorticosterone (Doca) and fluid and electrolyte replacement, BUN and electrolytes were reverted to normal limits and the general condition improved. The patient was fed through a levine tube. Amphotericin B treatment by intravenous route was started in progressively increasing doses and also was given by inhalation. Eleven days after admission, the patient had several tarry and, later on, bloody stools. The hemoglobin level dropped from 8.8 gm/100 cc to 4.7 gm/100 cc in two days. After receiving 1,500 cc of whole blood transfusion, the hemoglobin level rose to 9.5 gm/100 cc. No further bleeding episodes occurred during the remainder of the hospitalization. An upper gastrointestinal series at this time did not reveal any abnormality of the esophagus, stomach or duodenum. On Aug. 8, 1966 (40 days after admission), the patient complained of nausea and abdominal distention. Auscultation revealed hyperperistaltic bowel sounds. An x-ray of the abdomen was interpreted as small bowel obstruction of dynamic type (Fig. 2). The symptoms were relieved by Miller-Abbott tube decompression and other conservative measures (Fig. 3). A barium enema study done during the asymptomatic period was normal. However, the obstructive symptoms gradually became frequent and were unrelieved by intestinal decompression.

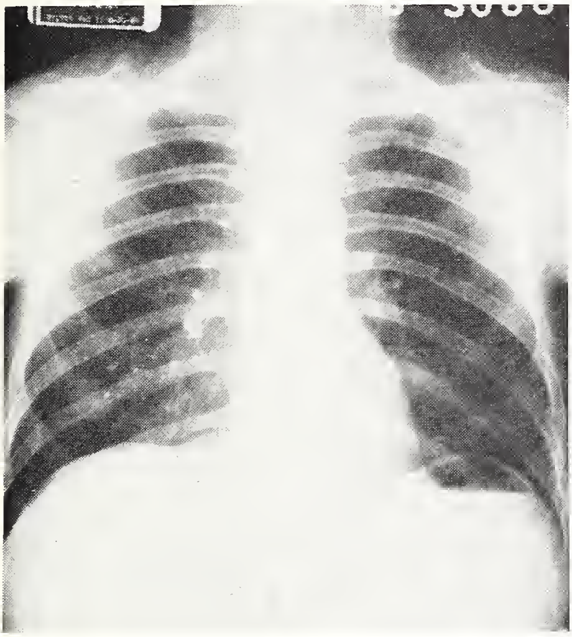

Fig. 1 Posterior-anterior view of chest; no active pulmonary disease is seen.

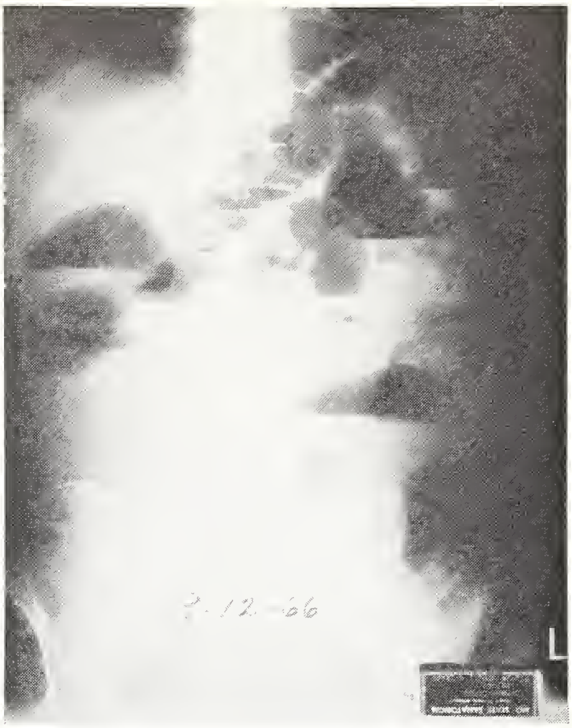

Fig. 2 Upright film of abdomen showing multiple air fluid levels characteristic of mechanical small bowel obstruction; no gas is demonstrated in the colon or rectum.

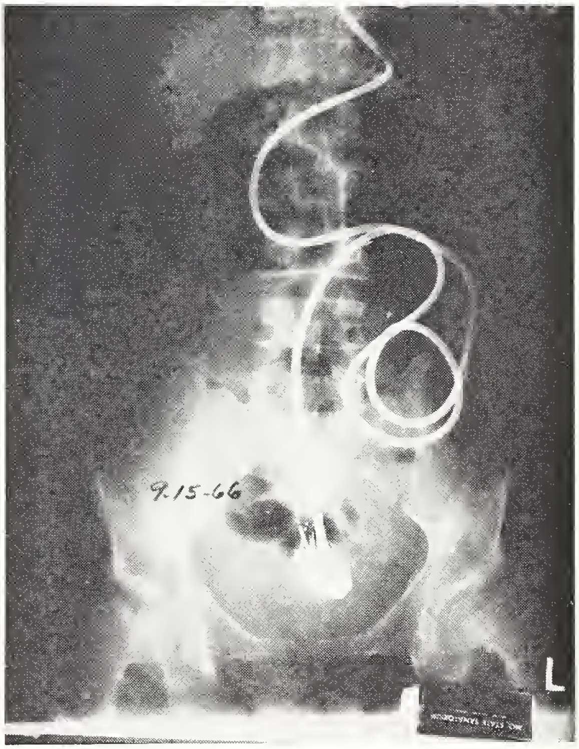

Fig. 3 Flat plate of abdomen showing Miller-Abbott tube in the small bowel. Few air fluid level patterns are seen.

An exploratory laparotomy was performed on Sept. 23, 1966. The only abnormality was confined to about two inches of ileum about one and one-half feet from the ileocecal junction, which was constricted and producing a complete obstruction. The obstructing portion of ileum was resected and bowel continuity was established by end-to-end ileal anastomosis. The resected segment presented an hourglass appearance. A round, band-like constriction produced total obstruction of lumen. The mucosa of the constricted area was replaced by fibrous tissue. Microscopically, fibrosis was seen in the serosal and muscular wall along with acute and chronic inflammatory changes (Fig. 4). The mucosa showed areas of ulceration. Differential staining of sections with methenamine silver stain revealed typical Histoplasmin capsulatum (Fig. 5).

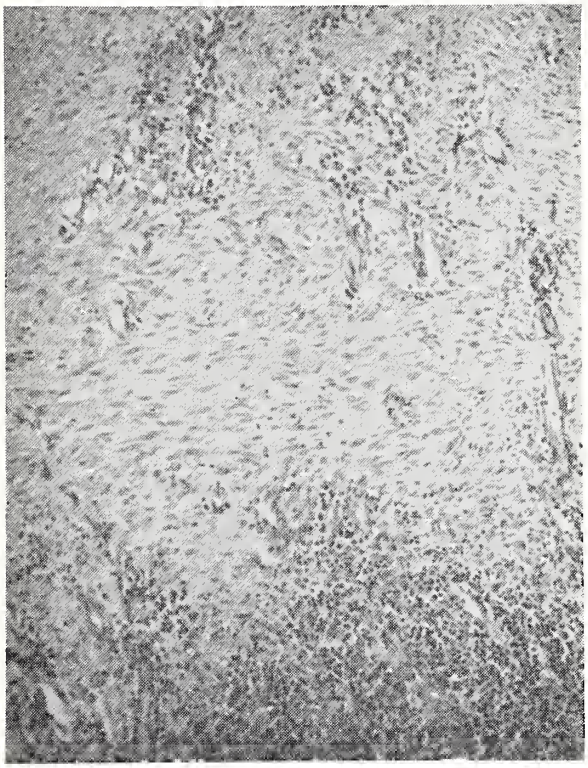

Fig. 4 Low power view of ileal wall from the resected specimen. Note fibroblastic proliferation in the muscular layer and acute and chronic inflammatory cells in the submucosa.

On the second postoperative day, the patient had three attacks of generalized convulsions which were controlled by diphenylhydantoin (Dilantin) therapy. A tracheostomy was done on the fourth postoperative day. The rest of the postoperative period was marked by steady recovery. By the end of three weeks, the patient was eating well and was ambulatory. The wounds healed satisfactorily. The laryngoscopic examination showed subsidence of edema of the right vocal cord compared to the earlier examination. The voice improved considerably. The patient had a normal appetite and started to gain weight. He received a total of 1,335 mg of amphotericin B. He was then discharged on a regimen of diphenylhydantoin and cortisone on Dec. 25, 1966.

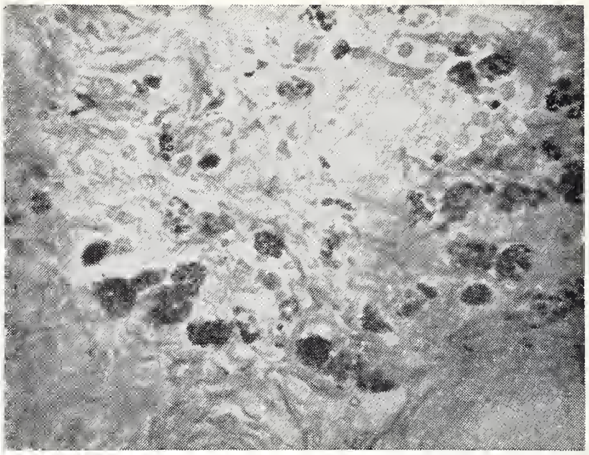

Fig. 5 Methenamine silver stain showing clusters of yeast form of Histoplasma capsulatum in the ileal wall of resected specimen.

On readmissions for followup in February, 1967 and July, 1967, his continued progress was noted. Repeat PPD and histoplasmin skin tests remained negative, and the complement fixation titers for histo mycelia and yeast were negative. No complaints pertaining to the gastrointestinal tract were noted. He then was discharged.

Discussion

Since Darling's[1] description of disseminated histoplasmosis in 1906, there has been steady increase in the knowledge and understanding of this disease. Histoplasmosis, now established as a disease with protean manifestation, has spared few organ systems in the human body. The portal of entry is known to be through the respiratory system. This has been questioned by Ritter,[2] who believed the gastrointestinal tract to be the portal of entry in some cases. Involvement of the gastrointestinal tract in disseminated histoplasmosis has been known in two of three cases that were first reported by Darling. The incidence of gastrointestinal tract involvement is not accurately known although some have reported the digestive tract symptoms to be present in as many as 20% of patients with histoplasmosis.[3]

Be that as it may, gastrointestinal involvement in histoplasmosis is not common. The main pathologic findings are those of ulceration of mucosa[4] and its sequelae. The symptomatology is dependent upon the extent and severity of the ulcerations and consequent scarring. Thus, diarrhea, cramping abdominal pain, intestinal perforation with secondary peritonitis, melena and exsanguinating hemorrhage constitute some of the important presenting features.[5, 6] The entire gastrointestinal track is vulnerable,[7] the pharynx, esophagus, stomach, jejunum, ileum, appendix, colon and rectum have all been known to be the site of involvement. The terminal ileum[5] appears to be the common site of affection. Although there have been recorded cases with obstructive symptoms, occasionally even showing filling defects in the cecal region, simulating tumor obstruction, acute and complete intestinal obstruction are very rare. In our case, dissemination was evidenced by the involvement of vallecula, positive sputum culture for Histoplasma capsulatum organisms, involvement of terminal ileum and probable involvement of the adrenal gland. We have no absolute proof of adrenal involvement, however, and its inclusion in the disseminated process is a clinical one. The chest x-rays did not reveal any active process in spite of one positive sputum culture. There is a likelihood that sputum was contaminated from the region of vallecula and no active pulmonary histoplasmosis was present at the time of hospitalization.

The diagnosis of gastrointestinal tract histoplasmosis is difficult in the absence of acute symptoms. The massive exsanguination and bowel perforation as a progression of mucosal erosion is only one manifestation of this disease process. Like other granulomatous diseases, it is surprising that fibrosis and the attendant stricture leading to intestinal obstruction have not been encountered before. Many cases have been discovered from autopsy material only.[6, 7] The roentgenological features show polyp or pseudopolyp, ulcer, colitis, obstruction and intussusception.[7] Of the 25 cases of progressive disseminated histoplasmosis reported from this institution, five were found to have gastrointestinal involvement.[8] Only the present case had developed small bowel obstruction. All of the features of acute abdomen may be simulated by gastrointestinal histoplasmosis.

The prognosis remains grave in disseminated histoplasmosis despite amphotericin B treatment. In our case, the progressively diminishing titre in the complement fixation tests was evidence of response to the amphotericin B therapy.

Summary

An unusual clinical and pathological picture producing acute, small bowel obstruction from ileal histoplasmosis is presented. At the time of developing complete obstruction, the patient was suffering from disseminated histoplasmosis.

Acknowledgement: The authors express appreciation to M. Wendell Dietz, M.D., author of "Illeocecal Histoplasmosis," and *The Journal of Radiology* for permission to publish this case report which was published previously with others in the August, 1968 issue of *The Journal of Radiology.*

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22nd Annual Midwest Cancer Conference

The Medical and Scientific Committee of the Kansas Division of the American Cancer Society has extended an invitation to all physicians in Missouri and the entire Midwest to attend the 22nd Annual Midwest Cancer Conference at the Broadview Hotel in Wichita, Kan. on April 10-11.

Registration is free for the two-day graduate course on cancer, entitled "Cancer and Its Clinical Management." AAGP credit will be awarded.

For further information, write Ivan E. Rhodes, M.D., Chairman, 1970 Midwest Cancer Conference, 824 Tyler St., Topeka, Kan. 66612.

MICHAEL BERNREITER, M.D., ***Kansas City***

Prolonged QT, Ventricular Premature Contractions and Sudden Death

Case Report

Extreme prolongation of the QT interval in connection with ventricular premature contractions presents a potentially dangerous situation. In such cases, quinidine should not be used to control the ventricular rhythmic disturbance. Sudden death, as in this case, is not an uncommon occurrence. As a point of primary importance, it must be stressed that in QT prolongation the ventricular premature contractions fall of necessity in the vulnerable zone regardless of the cause of the QT extension and that quinidine produces excessive QT duration in many patients.

It is well known that a prolonged QT interval in the electrocardiogram may be due to quinidine, hypokalemia, acute rheumatic carditis,[1] or acute myocardial infarction[2] and that, in general, the interval is a sensitive indicator of cardiac impairment in a number of pathological states.[3]

The total duration of the QT interval is the best guide to the duration of electrical ventricular systole. It is measured from the onset of the QRS complex to the end of the T wave. The QT duration varies primarily with the heart rate, being shorter with faster rates and longer with

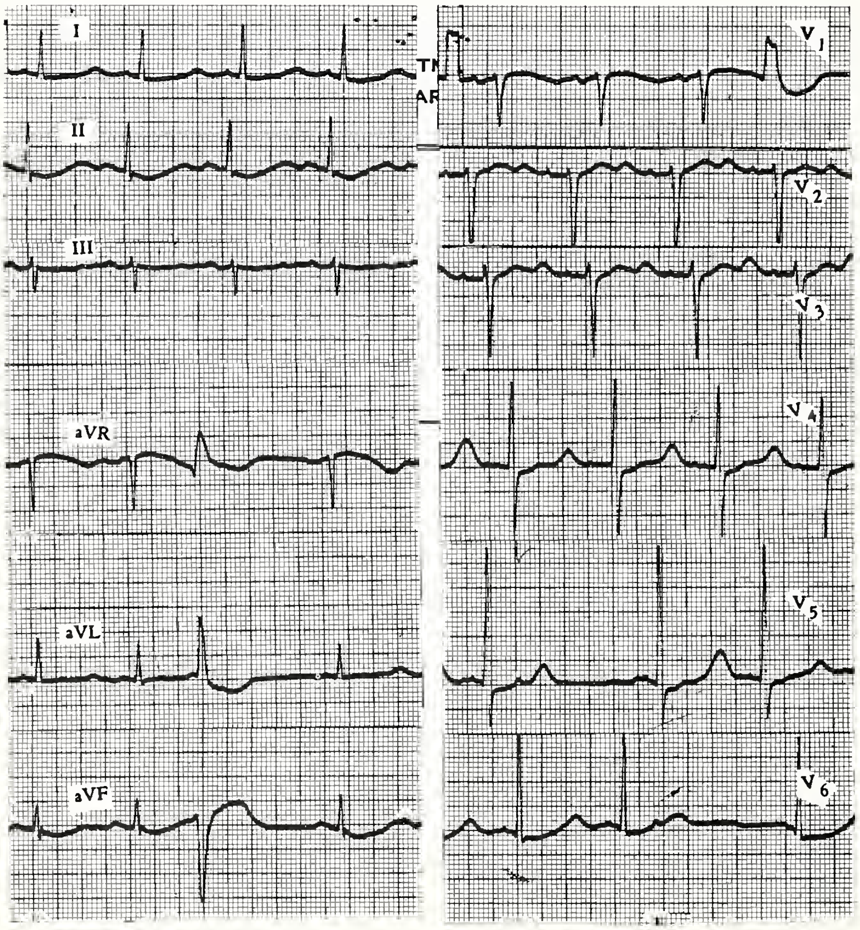

Fig. 1 This electrocardiogram, taken immediately after the patient entered the hospital, shows markedly prolonged QT interval and frequent ventricular premature contractions, all originating in the vulnerable period. The QT interval is 0.6 sec.

slower rates. A heart rate of 75 will normally produce a QT duration of 0.35 seconds; a rate of 120 produces a QT duration of 0.25 seconds; and a rate of 45, a QT duration of 0.45 seconds. The Bazett formula may be used to determine the normal QT interval for a given rate. QT duration is measured in the lead in which it is the longest. The average QT in men is 0.37 seconds and in women, 0.40 seconds.

CASE REPORT

This 45-year-old man entered the hospital with a chief complaint of "heart palpitations" for about three months, usually accompanied with some dizziness. He had taken 200 mg of quinidine every six hours for three months. Physical examination (BP) showed 140 mm of mercury systolic and 80 mm of mercury diastolic. The heart was normal in size, the rhythm was irregular and there were no murmurs. The lungs were clear. The liver was not enlarged. There was no peripheral edema. The laboratory studies, including hemoglobin, erythrocytes, leukocytes, sedimentation rate, fasting blood sugar, serum cholesterol and calcium, as well as transaminase, gave normal results. Serological tests for syphilis were negative; a chest x-ray was within normal limits.

The electrocardiogram (Fig. 1) showed a QT interval prolonged to 0.6 seconds and frequent ventricular premature contractions. Because the QT lasts up to the beginning of the P wave, all ventricular premature contractions fall within the vulnerable period of the cardiac cycle, increasing the susceptibility to the development of serious ventricular rhythmic disturbances.

This case report illustrates a clinical problem related to treatment of patients whose cardiovascular systems appear sensitive to quinidine as evidenced by prolongation of the QT interval. Dr. Bernreiter is from the Department of Electrocardiography, St. Mary's Hospital and is Associate Clinical Professor of Medicine, University of Missouri School of Medicine-Columbia.

After admission to the hospital, quinidine was increased to 6 grains every six hours to better control the ventricular premature contractions.

The patient died suddenly about 36 hours after admission. He developed ventricular fibrillation (Fig. 2). Attempts at resuscitation were unsuccessful.

SUMMARY

A case report of a patient who, on admission to the hospital, complained of "palpitations of

(Continued on page 107)

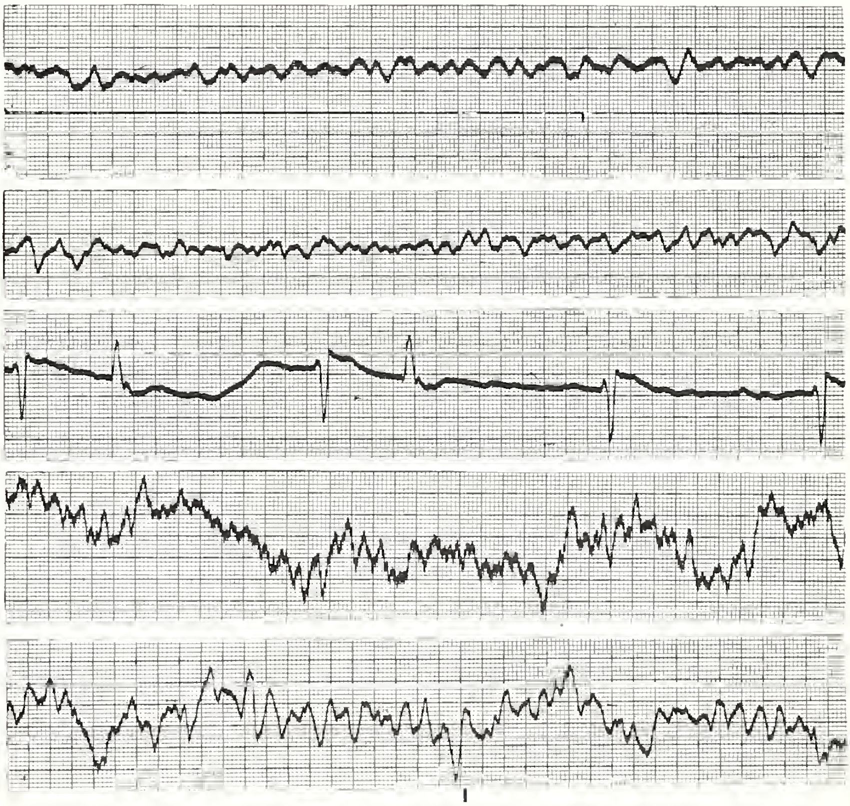

Fig. 2 This tracing was taken 36 hours after admission and shows ventricular fibrillation only temporarily terminated. After this tracing was taken, further attempts to stop the ventricular rhythmic disturbance were unsuccessful.

G. L. WATKINS, M.D., ***St. Louis***

Epidermoid Cyst of the Spleen With Spontaneous Rupture and Massive Hemoperitoneum

Case Report

NONPARASITIC CYSTS of the spleen are uncommon and may be either pseudocysts or true cysts. Pseudocysts have a fibroblastic lining and are of uncertain etiology, although most probably are traumatic in origin. True epidermoid cysts have an epithelial lining and are the least frequently encountered type of splenic cyst. They occur mostly in children and are thought to be of congenital origin. The presenting symptoms usually are pain and a palpable abdominal mass.

The following is believed to be the only case report of sudden spontaneous rupture of an epidermoid cyst of the spleen resulting in massive intraperitoneal hemorrhage.

CASE REPORT

A 14-year-old girl was hospitalized on Oct. 6, 1967 with a history of sudden onset of periumbilical abdominal pain at 3 AM, which was six hours prior to admission. The pain increased in intensity, she became weaker and her family physician was summoned. She was found to be in a shock-like state with a tender, distended abdomen and was transferred to the hospital immediately. There was no history of any antecedent injury, but her mother had noticed some fullness in her daughter's upper abdomen in recent months.

Physical examination revealed an extremely pale, "washed out" little girl complaining of pain in the midabdomen. Her blood pressure was 90/60 and her pulse rate was 120. Her abdomen was distended and tender, and there was evidence of fluid. No visible contusions were present. Rectal examination was negative. Her hemoglobin level was 4.7 gm/100 cc; hematocrit value, 15%; white blood cell count, 25,200/cu mm, with 86 segs and 14 lymphs. It was obvious that this was an acute abdominal catastrophe with intraperitoneal bleeding. Volume therapy was begun, her blood was typed and she was moved immediately to the operating room without further studies.

An incision was made in the midline in the central portion of the abdomen large enough to admit the examining hand. Immediately, blood and clots were encountered, and quick palpation of the female genital organs was entirely negative. Palpation then was done in the left upper quadrant and an enlarged, mushy spleen was felt. Clots and further bleeding followed as the examining hand was withdrawn. The wound was then enlarged upward and a spleen approximately four times the normal size was encountered. A large rent, measuring approximately 6 cm in length, was present on the medial surface of the spleen just anterior to the hilum. A splenectomy was done and further exploration was negative. The patient convalesced uneventfully and was discharged on the seventh postoperative day. She has remained well since.

Examination of the specimen revealed that the spleen weighed 670 gm. The previously described rent led from a huge cavity, which was partly filled with clots and would readily admit the examiner's fist. This seemed to be a large cyst. In some areas, the splenic substance was replaced and only the capsule and cyst wall remained. Sections of the spleen revealed a cyst partially lined with stratified squamous epithelium associated in many areas with hemorrhage (Fig. 1).

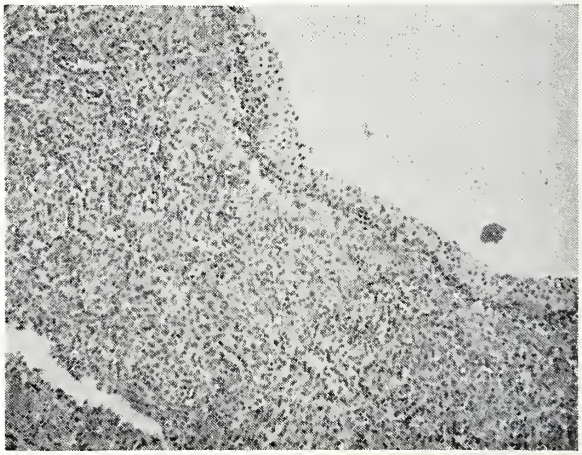

Fig. 1 Cyst lining of spleen revealing squamous metaplasia (X 100).

COMMENT

In 1953 Fowler[1] collected 265 case reports of splenic cysts of all types, which included only 25 epidermoid cysts. More recently, Qureshi and Hafner[2] reviewed the world literature and found 75 case reports of nonparasitic cysts, 43 of which were classified as epidermoid. Pain and a palpable mass were usual and only one was discovered incidentally. There was no case of rupture of any of these cysts. Isolated reports of epidermoid splenic cysts have appeared since, including one with disruption of the cyst wall, which led to an infected perisplenic hematoma, but none with sudden exsanguinating hemorrhage.[3–5] In the case report presented here, the child's mother probably was correct when she stated that she had recently noted some enlargement of her daughter's upper abdomen.

These cysts are all lined with stratified squamous epithelium and many exhibit areas of keratinization and even calcification. Whether they result from metaplasia of mesodermal elements or from an endodermal inclusion in the spleen during its early development has not been clearly established.

SUMMARY

A case of sudden rupture of an epidermoid cyst of the spleen in a 14-year-old girl resulting in massive hemoperitoneum is reported. Although it has been stated that these cysts can rupture, no similar report could be found in the literature. The incidence, symptomatology and possible origin of these cysts are briefly discussed.

A case report of sudden rupture of an epidermoid cyst of the spleen which resulted in massive hemoperitoneum. The patient was a 14-year-old girl. No similar report in the literature has been found by the author. Dr. Watkins is from the Department of Surgery, Washington University School of Medicine.

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Prolonged QT

(Continued from page 105)

the heart," is presented. His electrocardiogram showed frequent ventricular premature contractions. He had taken quinidine for three months before hospitalization and the dosage of the quinidine was markedly increased after admission to the hospital. His electrocardiogram showed severe prolongation of the QT interval with frequent ventricular premature contractions occurring in the vulnerable period of the cardiac cycle. He suddenly developed ventricular fibrillation and died in spite of attempts at resuscitation (external cardiac massage and defibrillation).

This case again proves that patients whose cardiovascular systems appear sensitive to quinidine as evidenced by prolongation of the QT interval would, perhaps, be better treated with other anti-arrhythmic drugs (Xylocaine, Dilaudid and Inderol).

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M. R. GAITONDE, M.D., ***Kansas City***

Medical Student and Treatment of the Mentally Ill

A Study

BACKGROUND OF THE MEDICAL STUDENT

THE MEDICAL STUDENTS arrive for their psychiatric clerkship for a full-time eight-weeks period during their senior year. During the period under consideration, which is June 1, 1965 to May 30, 1968, these students had experience in psychiatry as follows: In the freshman and junior years, no time was allotted for the teaching of psychiatry; in the sophomore year, the students had 15 two-hour sessions. In addition, a few students worked in psychiatry as an elective or during their free time. Members of the Department of Psychiatry participated by lecturing on psychiatric examination as a part of the course in physical diagnosis given to the sophomore students.

The psychiatric clerks came on the service in the senior year with varying degrees of competence and information with regard to clinical medicine, depending upon where in the clinical rotation the psychiatric clerkship happened to fall and, also, upon an affective set with regard to the discipline of psychiatry of either a positive or a negative nature. The total number of students in the group ranged from 16 to 22. This number was split into two smaller groups, one having six to eight students and the other group having ten to 14 students. One group worked in the clinic in the morning from 8 to 12 o'clock and the other from 1 to 6 o'clock in the afternoon. A psychiatrist (resident or faculty) supervised each student and he saw him on a weekly basis. Consultations with a psychologist or social worker were available as needed. In addition to this supervision, there was a weekly, one-hour interview seminar in which one of the staff psychiatrists interviewed the patient of one of the students he was supervising. He then discussed the interview, giving the student an opportunity to ask questions. Every week, a different psychiatrist-supervisor saw a different patient. Therefore, during the course of the clerkship, the medical students had the opportunity to watch six or seven different psychiatrists interview on television. Each student was required to prepare a case summary on a new patient after four interviews and to write weekly progress notes in regard to his contacts with the patient. The physical examination had to be repeated if the patient had not been examined within the past six months. Relevant laboratory workup on the patient was mandatory. The students were instructed to see the patient from 45 minutes to an hour during the history-taking process and to discuss with their supervisors the amount of therapeutic time required for a particular patient. Therefore, the student sometimes saw the patient for a 15-minute interview. He was told not to see any patient for a period of more than an hour, however.

The demand for psychiatric help in the community far exceeds the supply of qualified physicians. This article describes the efforts of 340 senior medical students who treated approximately 500 psychiatric patients under close staff supervision. Since there is a dearth of information in the literature concerning the results achieved under such an arrangement which constitutes a considerable resource in mental health manpower, the author hopes to supply information regarding the medical student and his ability to care for the mentally disturbed patient, the results that can be expected and the hazards involved. Dr. Gaitonde is Staff Psychiatrist at the Veterans Administration Hospital. He also is Associate Professor of Psychiatry and Director of the Psychiatric Clerkship Program at the University of Kansas Medical Center in Kansas City, Kan.

STRUCTURE OF THE CLINIC

Patients in the study came from (1) other hospital clinics, (2) were self-referrals, (3) and were referred by community agencies and (4) general practitioners within the community. The clinic functions on Monday through Friday from 8 AM to 6 PM. Students are forbidden to see patients after the working hours or on holidays and on weekends. All patients referred to the clinic are interviewed first by a psychiatrist. If, in his judgment the patient will be a suitable learning experience for the student and is likely to show some improvement within a matter of eight to 16 weeks, the patient is assigned to the psychiatric clerk. At the first interview, a determination is made regarding the fee that the patient should pay for his treatment at the clinic. The fee is determined on the sliding scale and depends upon the patient's ability to pay. No patient is refused treatment because he is not able to pay fees for his care. After the patient has been assigned to a student, it is then the responsibility of the student to schedule appointments for this patient. The object of this arrangement is to provide a structure for the student which will be similar to that with which he will work when he goes as a practitioner into the community.

On the average, each student has four to six patients during the course of his clerkship. Each patient is given a Minnesota Multiple Personality Inventory, a sentence completion test, a biographical data sheet and a Shipley-Hartford Intelligence Test. Students are taught to administer and interpret these tests by the psychologist at the clinic. The clinic staff consists of a full-time psychiatrist who is the director of the clinic, a secretary, a social worker and a psychologist. During the period under consideration, there were several months during which the clinic did not have the continuous services of a psychologist or social worker but had opportunity for consultation. The services of the director and a secretary were available at all times.

RESULTS

A total of 550 patients were seen by the medical students during the period under review. The Department of Psychiatry has a Division of Child Psychiatry which functions separately from the Adult Outpatient Clinic.

Table 1 shows the breakdown of these patients according to their age groups. Percentages are calculated on the basis of a fraction of less than half being discarded and of more than half being advanced to the next whole digit. Patients in the study belonged to the lower socioeconomic group or lower middle class who could not afford private psychiatric care.

TABLE 1

AGE DISTRIBUTION

Age	*Percentage*
Less than 20 years	8
Between 20-30 years	32
Between 30-40 years	28
Between 40-50 years	21
Between 50-60 years	6
60 years and above	5

Table 2 presents the intelligence quotients of the patients as measured by the Shipley-Hartford Test. Almost one half of the patients treated in the outpatient clinic have an IQ of 100 to 120 and one fifth have an IQ of 110 to 120, which is approximately the IQ of an average medical student. This finding could be used for instructional purposes to emphasize for the medical student the idea that emotional disorders can occur in intelligent persons, which is a "bitter pill" for the medical student to swallow. Very often, there is a tendency on the part of the medical student to look with contempt upon a patient with emotional problems. This is a carry-over from the traditional attitude of decades gone by when a mentally ill patient was considered to be lacking in moral fiber, stupid or irresponsible. Several students began to look upon these patients as people in distress and worthy of the physician's care and, consequently, were less critical. Certainly, they didn't look upon their patients as stupid, and one student stated, "He's just as intelligent as I or even more so. What guarantee is there that I won't become mentally ill?"

TABLE 2

INTELLIGENCE QUOTIENTS
(SHIPLEY-HARTFORD)

I.Q.	*Percentage*
Less than 80	1
Between 80-90	6
Between 90-100	23
Between 100-110	42
Between 110-120	20
Over 120	8

Table 3 shows that one fourth of the patients came to the clinic for less than five appointments. As a matter of fact, some called the clinic for an appointment and then did not even keep

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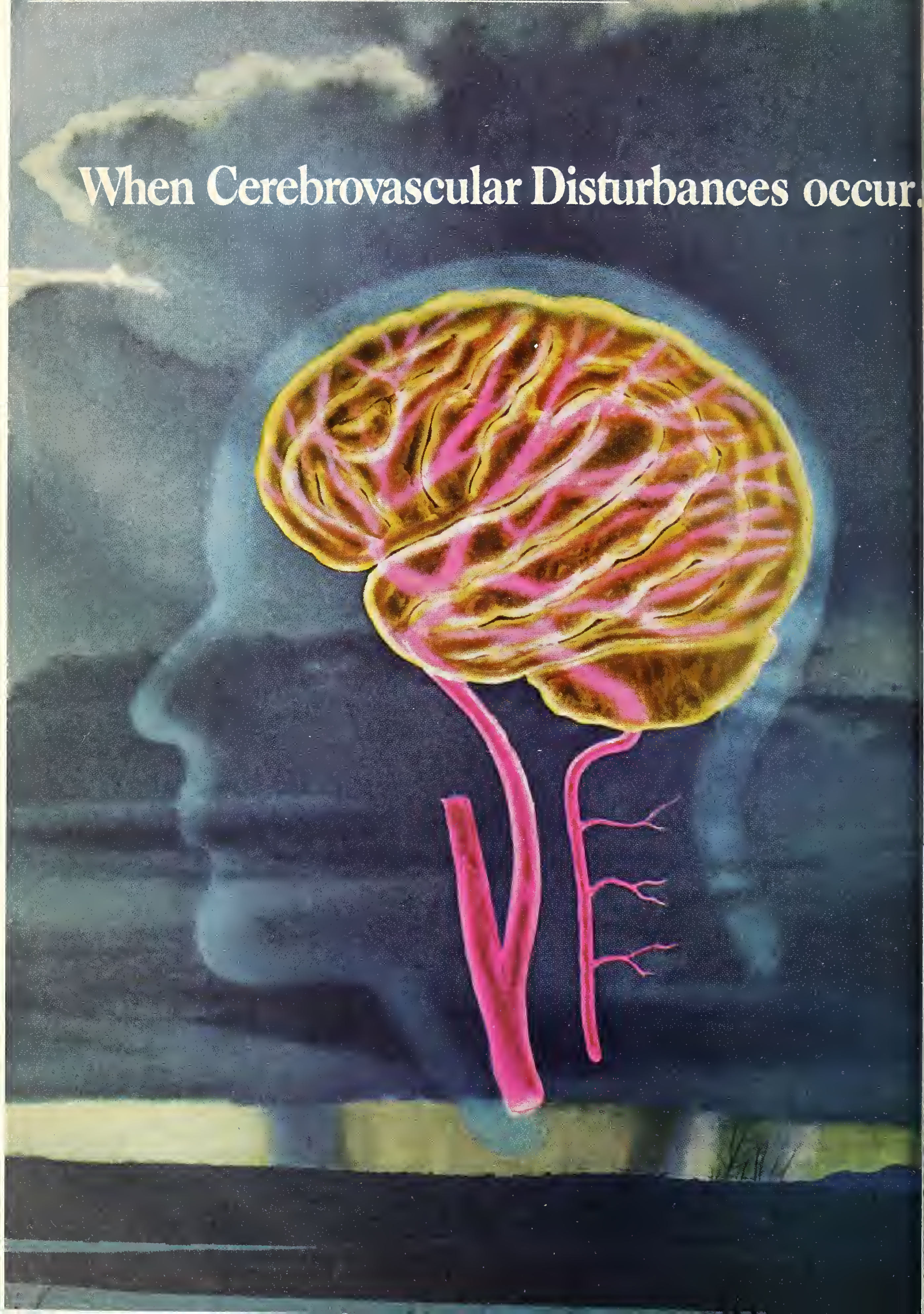

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lthough not all clinicians agree on the value of vasodilators in vascular disease,[1] several investigators[2-5] have reported favorably on the effects of soxsuprine on cerebral blood flow. Effects have been demonstrated both by objective measurement[2,5] and observation of clinical improvement.[2-4] **ndications:** Cerebrovascular insufficiency, arteriosclerosis obliterans, diabetic vascular diseases, thromboangiitis obliterans (Buerger's disease), aynaud's disease, postphlebitic conditions, acroparesthesia, frostbite syndrome and ulcers of the extremities (arteriosclerotic, diabetic, thrombotic). **omposition:** VASODĪLAN tablets, isoxsuprine hydrochloride 10 mg. **Dosage:** Oral—10 to 20 mg. (1 or 2 tablets) t.i.d. or q.i.d. **Contraindications nd Cautions:** There are no known contraindications to recommended oral dosage. Do not give immediately postpartum or in the presence of arterial leeding. **Side Effects:** Occasional palpitation and dizziness can usually be controlled by dosage reduction. As intramuscular administration of 10 g. or more may cause brief hypotension and tachycardia, single intramuscular doses exceeding this amount are not recommended. Complete etails available in product brochure from Mead Johnson Laboratories **References:** (1) Fazekas, J. F.; Alman, R. W.; Ticktin, H. E.; Ehrmantraut, V. R., and Savarese, C. J.: Angiology *15*:No. 2 (Feb.) 1964. (2) Horton, G E., and Johnson, P C., Jr.: Angiology *15*:70-74 (Feb.) 1964. (3) Clarkson, S., and LePere, D M · Angiology *11*:190-192 (June) 1960 (4) Dhrymiotis, A D, and Whittier, J R.: Current Therapeutic Research *4*:124-128 (April) 962 (5) Whittier, J R.: Angiology *15*:82-87 (Feb) 1964

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TABLE 3

TOTAL NUMBER OF TREATMENTS

Number	*Percentage*
Less than 5	25
Between 5-10	32
Between 10-15	22
Between 15-20	9
Between 20-25	9
More than 25	3

the first time appointment. Occasionally, as many as two of the four or five patients cancelled their appointments with their student-doctor with the result that the medical student experienced a rejection and wondered what it was about himself that caused the patient not to keep the first appointment. The student does not appreciate the fact that there is nothing he could have done since there was not even an "eyeball to eyeball confrontation" between him and the patient. The supervisor of the student needs to point out that this is par for most outpatient clinic practice. This bit of information protects the student from unfair self-evaluation. In the beginning, the patients were seen approximately once or twice a week for psychiatric history-taking. Thereafter, the patients were seen less frequently according to their psychological needs and problems. Table 3, therefore, does not reflect the duration of the patient's treatment, but takes into account the number of visits since the patient's first treatment in the clinic to the final disposition.

If during the period of study, the patient started treatment at the clinic, quit treatment after some weeks for some reason and then returned to the clinic for further help during the period under study, he is not included in the study. As mentioned before, only patients who would improve within ten to 25 treatments were accepted in the clinic since it is a policy of the clinic to accept patients whom the family physician could help in his private practice. Long-term cases were referred to the Resident Clinic. That is why patients who had between ten to 25 treatments constitute 40% of the group and only 3% had more than 25 treatments. The arbitrary ruling that the patient's illness should have the potential of showing some improvement within a matter of eight to 16 weeks has both positive and negative aspects. On the positive side, it does not create a dependence which is known to occur in emotionally-disturbed patients. Also, if the symptomatic improvement is going to occur, it takes place during this period. After that, it reaches a plateau.

The negative aspects occur when a patient is transferred from one student-doctor to another and looks upon the change with a sense of relief if he did not get along with the first doctor. Also, he hopes for a miracle with the second student-doctor. Conversely, if he did like the first doctor, he regards with ominous anticipation whether or not he will get along with the next doctor. In addition, the patient wonders if information he has shared with his first doctor will be transferred in detail to the next one so that he does not have to relate his history all over again. This is understandably a frustrating, if not a traumatic, situation for the patient.

Incidentally, in the early part of the clerkships, some medical students usually wax eloquent about the injustice of this kind of an arrangement from the standpoint of the patient. They have difficulty in recognizing the other dimension of the situation, namely, that a doctor does not like to accept a transferred patient but prefers to take care of a patient from the start. The student-doctor is encouraged to explore the affect of the patient towards his previous doctor. Also, the student is alerted to the fact that whatever feelings he has regarding the patient's previous doctor, who is a fellow student, he should learn to recognize, appreciate and control his feelings and try not to contaminate his therapeutic relationship with the patient by injecting his attitude towards the patient's previous doctor. For example, he should avoid remarks such as, "I can see why you could not get along with him. None of his classmates do."

Table 4 shows the breakdown of patients in terms of diagnostic categories. The description of each category is according to the *Diagnostic and Statistical Manual of the American Psychiatric Association* of 1965. It should be remembered

TABLE 4

PSYCHIATRIC DIAGNOSES

	Percentage
Psychoneurotic Disorders	33
Involutional Psychotic	6
Affective Reactions	2
Schizophrenic Reactions	9
Psychophysicological Disorders	10
Personality Disorders	17
Transient Situational Personality Disorders	14
Organic Brain Disorders	9

that frankly psychotic patients usually are processed through the screening clinic of the department which is different from the outpatient clinic. Also, a few cases which come to the Medical Center after working hours or on weekends are handled through the emergency room where the patients are seen by the psychiatric resident on call. Some are referred to the outpatient clinic when such a disposition is indicated.

Target symptoms or the chief complaint of the patient are included in Table 5, using the patient's own words. If patients used different statements to express the same idea in describing their presenting problem, then they are grouped together under the statement most frequently used by the patients. The breakdown is of the number of patients seen rather than the percentage in each category, since I felt this would be more meaningful.

TABLE 5

TARGET SYMPTOMS

	Number of Patients
1. I have a headache, palpitations, breathing difficulties, etc.	52
2. I am nervous, I have no confidence in myself	20
3. I am unable to concentrate	15
4. I am depressed, I have no appetite, I sleep for relief, I'm afraid I'll commit suicide	104
5. I have memory difficulties, I'm afraid I'm losing my mind	9
6. I have difficulty in getting along with people at work	36
7. I have marital difficulties	65
8. I am afraid of dirt, insects, etc.	9
9. I am afraid I will hurt my children	18
10. I have difficulty in getting along with the opposite sex	72
11. I am attracted towards another male (female) other than my husband (wife)	36
12. Sexual affairs about which I feel guilty	64
13. I am not happy the way I am, I want to know what makes me tick	14
14. There is nothing wrong with me, I am here because (teacher, spouse, employer, parent, police) sent me here	29
15. I am here so that my husband (wife) will come for treatment	7
Total	550

The results of the treatment as represented in Table 6 are based on the cumulative judgment of the patient and the student using the target symptom as a frame of reference.

TABLE 6

RESULTS OF TREATMENT

Category	*Percentage*
No Change	24
Hospitalized	8
Discontinued, AMA	30
Improved	38

Included in the discontinued category are patients who quit treatment without alerting the student doctor of their intention to do so. The AMA category includes patients who did not follow the student-doctor's recommendation to continue coming to the clinic for help.

During the period under review, the outpatient clinic did not have a waiting list. The clinic could almost be considered a walk-in clinic during the working hours, since there was no prerequisite for admittance. The case with which the patient could be referred to the Psychiatric Clinic from other departments of the hospital in the Medical Center improved relationships with the other departments. To some extent, this was progress. At the same time, however, there was the drawback of physicians of the other clinics not doing the psychological workup on the patients which, as physicians, they should be able to do.

DISCUSSION

At all times, the student should feel he is being supported by the faculty. If at any time he needs assistance, it should be readily available. A student needs prompt and competent help, particularly in situations in which the question of suicide has to be evaluated. During the period under review, there were no suicides.

Students are informed that the immediate availability of his doctor by telephone is reassuring for the patient. In select situations, the students could give their home phone number in case the patient is confronted with a crisis situation. Also, if the situation requires, the student is encouraged to visit the patient's home to make an on-the-spot evaluation of the patient's living conditions. This approach clarifies for the student the concept of comprehensive care of "the total patient" and minimizes the traditional concept of the practice of "office psychiatry." The availability of various community resources, such as vocational rehabilitation, family guidance clinics and social service agencies, and their usefulness are explored in individual situations for maximizing the therapeutic assistance to the patient. All prescriptions written by the student are signed by his supervisor or a staff psychiatrist since the student is not a licensed physician. This situation provides an opportunity to inculcate sound habits of prescription writing in the student and test his knowledge of the drug he is prescribing. The use of psychopharmacology in the management of emotionally disturbed individuals is given the same emphasis as psychotherapy. Few papers in the literature point out the fact that modern psychiatric teachers sometimes treat the psychopharmacology as the second class form of treatment and emphasize psychotherapy as a treatment of choice. Such a situation is not permitted to occur in this program. The use of drugs or advice to the patient should be perceived by the student as a therapeutic intervention only to be prescribed with care after full comprehension of the clinical situation.

The medical student becomes frightened when he is asked to talk to a mentally disturbed patient. A few express their irritation openly by saying, "I do not know enough about psychiatry"; others buried themselves in the book with the hope that more information about the psychiatric syndrome the patient supposedly has would improve their ability to help the patient. Academically, this point of view is well taken. The student, however, does not recognize the defensive maneuver of avoiding an interpersonal encounter with the patient. Some of the frequent maneuvers used by the students to cope with the distress of seeing a psychiatric patient included being late for an appointment with the patient or scheduling two patients at the same time. The latter situation should not occur in this program since the medical student sees approximately four patients and has approximately ten to 12 free hours during the course of the week in which to see them. Compulsive evaluation of the somatic component of the patient's illness is another maneuver used by the student to avoid "coming to grips" with the psychological issues presented by the patient. As mentioned before, all patients assigned to the medical student have been screened by psychiatrists previously and, sometimes, there occurs a rather excited exchange between the student and his supervisor, since the student is of the opinion that the patient who has been assigned to him has no problems. This denial mechanism is used by the student quite frequently, particularly when the psychopathology of the patient triggers off some of the emotional blind spots within the student himself.

Some students want to hospitalize the patient when the decision is not based on the patient's psychopathology or clinical condition, but is more a function of a student's rejection of the patient. We feel this is true since, as soon as the patient is hospitalized, he is either transferred to another facility or if he is hospitalized on the inpatient service of the Department of Psychiatry, someone else takes care of him, not the student in the outpatient clinic. Very often, the student feels frustrated with the supervisor for not giving him precise and clear-cut answers, as much as to say, "You have the answers and you do not give them to me" (which has a mild paranoid flavor). It is gratifying to note that this attitude of the students changes markedly for the better towards the end of the clerkship. At times, the students project this frustration to the patient by becoming angry and irritable with him for not improving fast enough so that the student's ego can be boosted by being considered an effective physician. As reflected in Table 5, the majority of the patients have reality problems. When the student is invited to enter into frank discussion at a practical level with the patient in regard to these problems, both during the supervisory hour and the therapeutic hour, some students receive a jolt to their already formulated bias towards psychiatry. This was expressed by one student as "I thought that in psychiatry we had to dig into the patient's background and his childhood years before we could *really* help him." Some students feel paralyzed by the thought that if they make a wrong suggestion to the patient, they will cause irreparable damage to him, almost operating on the "egg shell" theory. They suggest, therefore, that inaction is better than wrong action, ignoring the fact that with such a posture they will never "get their feet wet" in the clinical transaction. Some students feel that one single psychological conflict occurring in the patient's previous years is responsible for everything that the patient had to pass through since then. Therefore, they become excessively preoccupied with trying to dig into that specific conflict to the total neglect of the patient's current situations and problems. This is a throwback from the psychoanalytic teaching which carries the additional aura of doing something etiological and, therefore, scientific for the patient as opposed to the symptomatic.

It seems to me that the level of psychological sophistication of the therapist needed to help the patient is inversely proportional to the reality problems that the patient experiences. It is frequently heard in the Department of Psychiatry that there are several patients who come week after week or sometimes two or three times a week to see their psychotherapist, when to all intents and purposes there is nothing wrong with them. These patients usually see senior, experienced psychiatrists, which makes the situation even more paradoxical. Many of you recall that rather scathing criticism was made by a lawyer about the psychiatric profession at one of our annual meetings recently. Students may pick up this point of view to get back at the faculty and frequently "spice it" with the community-consciousness and community-responsibility "bogey." The "pill-pushing, push-button-oriented" psychiatrists support the position of these students. One effective way to handle a student's difficulty in this area is to use the role playing technique. The teacher should assume the role of a patient and get the student to talk to him as a patient. The student will quickly realize that the patient has mastery over his day-to-day functioning, and, therefore, psychotherapeutic help has to be rendered at the intrapsychic level. Acquiring this "know how" requires a great deal of time, training and sophistication.

Conclusion

Senior medical students with little or no experience in psychiatry at the time they started the clerkship in a structured program[1] in which didactic information with regard to the psychiatric syndromes was shared during the course of the clerkship and ample supervision was provided all through the clerkship were able to take care of a sizeable number of patients and help them. Psychiatry is essentially a discipline which deals with the feelings of the patients. Therefore, it is insufficient to make an impact on the medical student only at a cognitive level. When a program is developed in which the student experiences the psychiatric thoughts mentioned in the textbooks in clinical situations, he begins to believe them and emerges from the clerkship with better understanding of emotional problems.

Tactics used by the student to cope with the stress of psychiatric clerkship are discussed. In a separate study, the student's perception of this experience has been discussed in detail.[2] Briefly, an overwhelming number of students find the clerkship both enlightening and enjoyable and comment that the degree of responsibility with which they were entrusted during the clerkship with immediacy of consultation availability and direct work with the patients contributed largely to making the clerkship experience a worthwhile one. Toward the end of the clerkship, students were able to appreciate the fact that a psychiatrist needs to develop "professional bifocals" so that he can delve into the possible intrapsychic processes when indicated or manage the patient's current distress when it is in the foreground. Not only does the medical student emerge more sophisticated psychologically, but the community benefits from the services rendered by the students to these patients. The study indicates that the results of this endeavor are promising.

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Reprints: M. R. Gaitonde, M.D.
4643 Wyandotte
Kansas City, Mo. 64112

In Memoriam

Clithero, William H., M.D., Duarte, Calif., a graduate of Washington University, 1912; member of St. Louis Medical Society; aged 85; died Dec. 14, 1969.

Katz, Milton, M.D., Kansas City, a graduate of the University of Toronto, 1945; member of Jackson County Medical Society; aged 45; died Dec. 16, 1970.

Gitt, Joseph J., M.D., Ladue, a graduate of Washington University, 1930; member of St. Louis County Medical Society; age 62; died Dec. 24, 1969.

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Owner Breaks Arm When Yacht Runs Agrou

Schuyler, Oct. 31. Harry Waters of Covesville incurred a fractured arm acht ck a large rock

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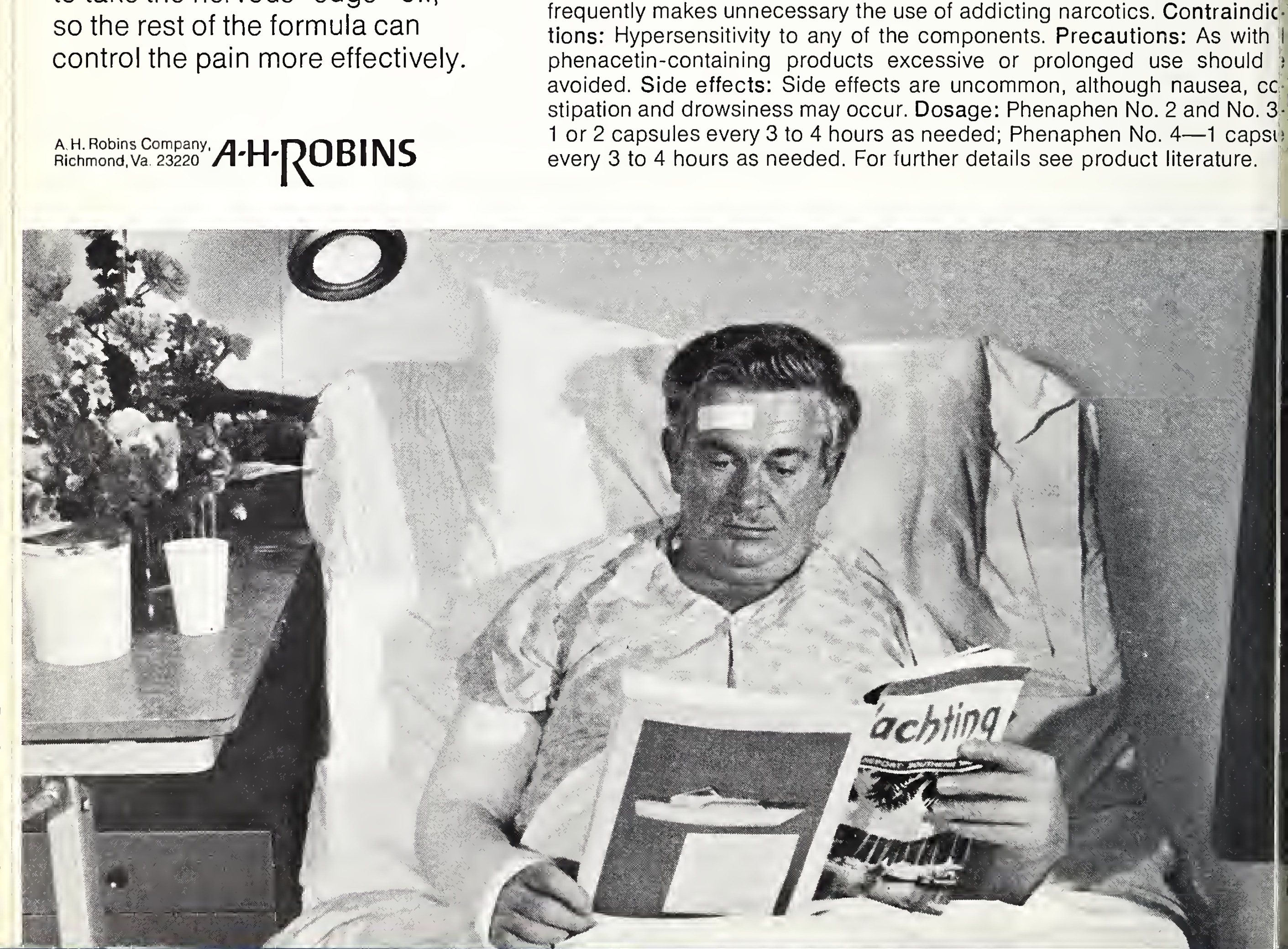
Indications: Phenaphen with Codeine provides relief in severer grades pain, on low codeine dosage, with minimal possibility of side effects. Its u frequently makes unnecessary the use of addicting narcotics. **Contraindic tions:** Hypersensitivity to any of the components. **Precautions:** As with phenacetin-containing products excessive or prolonged use should avoided. **Side effects:** Side effects are uncommon, although nausea, co stipation and drowsiness may occur. **Dosage:** Phenaphen No. 2 and No. 3 1 or 2 capsules every 3 to 4 hours as needed; Phenaphen No. 4—1 capsu every 3 to 4 hours as needed. For further details see product literature.



President's Message

During the past year, it has been my privilege to visit many of our component medical societies which represent approximately 85% to 90% of the membership of MSMA. I regret that I could not make it 100%.

I have been impressed by the fact that so many of our members have been active in community affairs. Too often this participation by physicians has gone unnoticed by both members of the Association and the general public.

Usually, the busiest physicans are those who find time to make important contributions to their communities. Literally hundreds of doctors have served with distinction on college and university boards, school boards, city councils, Chambers of Commerce, church boards, Boy Scout Councils, Girl Scout Councils and state and national boards and commissions. They have contributed special knowledge and skills to voluntary health agencies, such as the Red Cross, Heart Association, Cancer Society and others.

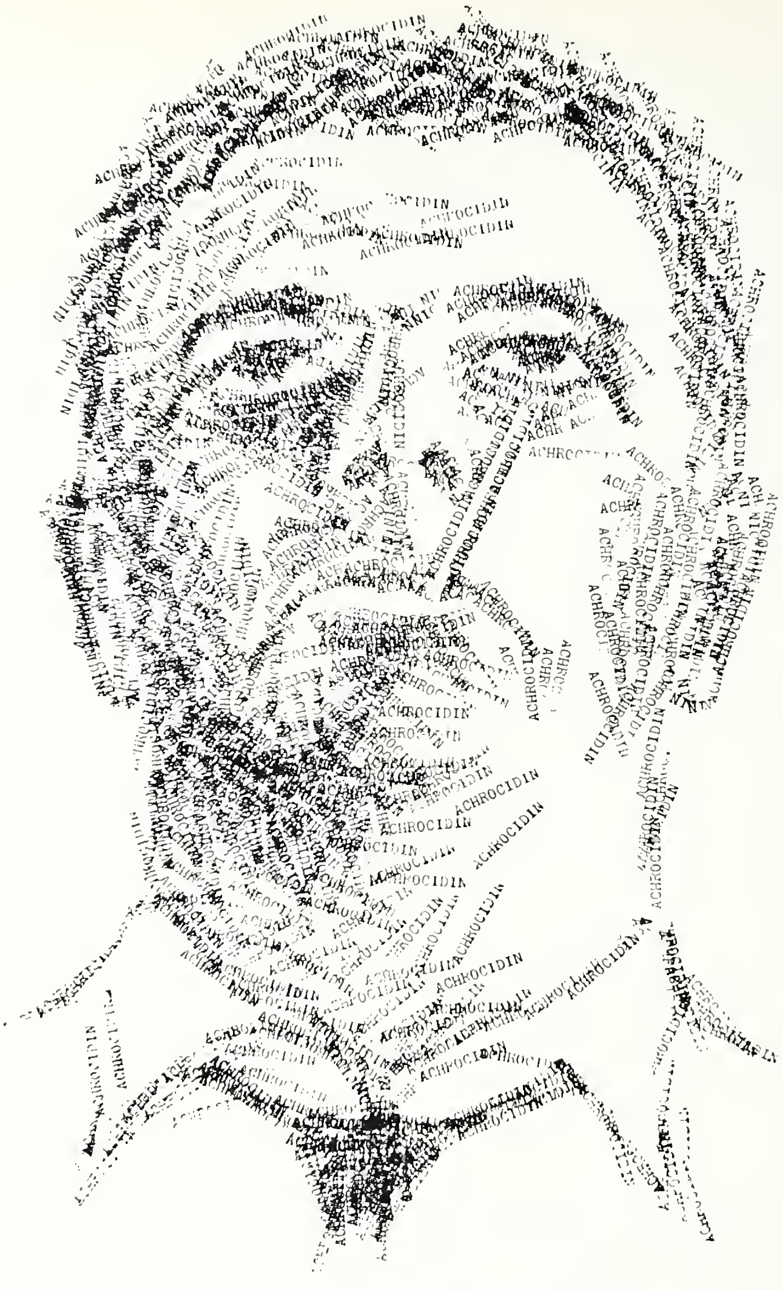
Doyle C. McCraw, M.D.

Physicians have examined, without charge, untold thousands of boys and girls for summer camps. They have contributed much time and money to United Fund drives and similar efforts. They have been members, presidents and district governors of Rotary, Kiwanis, Lions, Optimists and others. They have served on planning commissions and redevelopment committees and have battled pollution and other environmental hazards. The list is almost endless. The physician is effective in these roles because when he speaks with the purview of his professional competence, he does so with solid authority.

It is the willingness to serve others and the genuine desire to make a special personal contribution to the common welfare that give the physician such personal satisfaction in this nonprofessional and civic work.

Recognition of their activities in these fields should disprove the suggestion by some people that all doctors are selfish, greedy and self-centered.

I commend the many busy doctors of Missouri who have given so willingly of their time, talent and money to such worthy causes.



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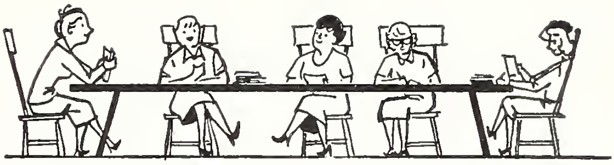
Woman's Auxiliary



Membership is **an accurate reflection of the success or failure of an auxiliary's total program.**

In the words of our National President, Mrs. John M. Chenault:

"The accomplishments of state and county auxiliaries when added together represent a truly commendable total effort—an effort which reflects the dedication and community involvement of our 91,167 members. Yet, this record total is still only about half of our potential.

"Let's dream a little and consider what might be accomplished with twice as many members:

A million dollars raised annually for AMA-ERF?

Another million in loans and scholarships for health careers?

Cooperation with other voluntary organizations and, in some cases, with governmental agencies, to supply community health needs in every city?

Ongoing programs of health education under auxiliary sponsorship in every county?

A citizenry well informed as to how to use our remarkable health care facilities?

"Impossible dreams? Unreachable goals? Not necessarily, provided we can enroll and use the talents of every potential member. Remember that information creates interest; interest leads to involvement; involvement brings results.

"Our friends in the Woman's Auxiliary to the Student AMA refer to auxiliary membership as 'the second investment in your husband's future.' We might go a step further and call it an investment in the future of our communities and our nation.

"So, think of yourself as an investment salesman, intent on selling the value of auxiliary membership to every eligible woman with whom you come in contact. Your commission? The chance to see changes brought about which will raise the level of health care of all our people and make this country an even better place in which to live."

Mrs. James A. Reid, President

I have stressed membership—you can stress membership, too. In 1968-1969, we enrolled 9,117 new members nationally. We lost 8,012 members through resignation or failure to pay dues. Our membership loss seems to be in two significant problem areas. One is the small auxiliary which disbands for a number of reasons. The second problem area is in the large cities where there is the largest disparity between Medical Society membership and Auxiliary membership. These large cities need the help of the whole state in increasing and holding membership.

I offer each physician in Missouri this challenge. If your wife is not an auxiliary member, insist that she join an organized auxiliary or as a member-at-large. This is our goal for this decade.

EDITORIALS

DOCTOR'S BATTING AVERAGE

"Man that is born of a woman is of few days, and full of trouble" to repeat a well worn quote. His days, like those of the elephant and the fruit fly, are numbered and all Hell plus medical science cannot preserve his body or his mind forever.

One Russell Baker, writing in the *Post-Dispatch* from Washington, D. C., on September 6 suggested that Doctors, like baseball players, be given a percentage rating—16 operations, 16 successes = 100%, 16 operations, 8 deaths = 50%. That would be fine if life was a perpetual affair, but life has an ending pre-prescribed by Old Mother Nature—called Death—and any Doctor living long enough would arrive at a zero percentage of patient saving because total and everlasting patient saving is a physical and natural impossibility.

Doctors are not professionals who save lives. Doctors are professionals who prolong life and make life more comfortable. They are not Gods and can no more stay the inevitable hand of the grim reaper than an Indian medicine man can stop a tornado by beating on a drum.

Mr. Baker misses the point when he advised future patients of Dr. Smith to ask Dr. Jones about Dr. Smith. In the first place, Jones may not know anything about Smith. If he does, and it is all bad, he isn't about to open himself to a healthy slander suit, and if it is all good and then later on Dr. Smith's new patient comes to the inevitable end of the road, Dr. Jones catches Hell for what was going to happen regardless of who did the prescribing or the surgery.

Life is not a guaranteed forever, continuing process, and Doctors have not yet made it so. Frankly, it is not likely that humans (and Doctors are human beings) will ever over-rule the old idiom, "It is as Naturall to die as to be borne" (Bacon), or "He that is once born once must die" (Herbert).

The solution to what Russell Baker proposes is to select a Doctor who comes recommended by patients, or is given as a referral by the local Medical Society which probably knows more Doctors than any one Doctor in the area. After all, when a medical society is asked to supply a blue-eyed gynecologist under 40, or a Spanish speaking pediatrician, and supplies the need within ten minutes, it knows its membership, and it is not likely to send someone with a chronic ingrown toenail to a cardiologist.

So far as batting averages are concerned, Doctors living long enough will ultimately wind up with a zero rating. It's in the cards. It's in the book.

It is not in man's jurisdiction or authority to make life everlasting. It was not planned that way in the beginning—it is not the destiny of the human animal.

St. Louis County Medical Society Bulletin

"POLLUTION, POLLUTION"

"Pollution, pollution." These words may sound humorous when sung in a biting fashion by Tom Lehrer, the mathematician-songwriter. They are not so amusing, however, when viewed in the light of what is actually happening. Billions of dollars are spent by the government in space exploration, while little is done to control pollution of the air, water and land on which man depends for his life.

The meeting of the American Association for the Advancement of Science in Dallas, Texas, December 1968, concerned itself with this problem. Unfortunately, much that was said at that gathering attracted little attention since the orbit of the moon by Apollo 8 took place at the same time and received top billing in the press, on TV and radio.

Disastrous Changes

The pollution problem was described succinctly by the noted anthropologist, Dr. Margaret Mead: "We are altering man's environment in ways we do not understand and in ways that may be disastrous." Participants in the conference gave examples of pollution of the oceans by mercury in waste products and by oil leakage. They discussed the danger of lung cancer from asbestos particles in the air around construction projects. They warned of soil poisoning from excessive application of nitrogenous fertilizers. Said Edward D. Goldberg, professor of chemistry at the Scripps Institution of Oceanography, University of California at La Jolla:

> The United States in comparison with the rest of the world appears to be responsible for around one-third to one-half of many of the contaminants introduced into the atmosphere or oceans.

Later came the grim warning from H. Richard Weinerman, M.D., professor of medicine and public health at Yale University School of Medicine, that an epidemic of lung cancer in a city like Los Angeles is a possibility within five to ten years. The cause—air pollution from automobiles.

In addition to contaminated air and water, modern man is more and more the victim of pollution by noise, a more subtle yet more difficult aspect of the entire problem. A report issued by the Federal Council for Science and Technology in late 1968 indicated that man can no longer escape from noise, whether it be at home, at work or on vacation. The noise of aircraft, traffic, heavy machinery, motor boats and lawn mowers assails him wherever he goes. (*New York Times,* Feb. 28, 1969)

Although the problem of noise is growing in this country, too few studies have yet been made to determine the overall effects of noise on health. Whatever studies have been done concentrate on hearing loss, especially among industrial workers. However, the report from the Federal Council for Science and Technology indicated that the dangerous and hazardous effects of intense noise on health have been greatly underestimated.

What can be done to save man from the polluted environment that he has created? Studies of noise pollution by responsible government agencies may be the first steps toward abatement of the problem. Anti-noise ordinances should be strictly enforced in communities where they are already in effect.

Industrial Smoke

Some efforts are being made to control and reduce other sources of pollution. New automobiles, for example, must have devices to reduce their output of noxious exhaust gases. Too few cities, however, have yet been able to reduce the volume of industrial smoke that contaminates the atmosphere.

What is lacking is an all-out attack on pollution led by appropriate government agencies, state as well as federal. The United States was able to land a man on the moon, but will it be able to preserve the earth for those who must live on it? Barry Commoner, director of the Center for Biology of Natural Systems, Washington University, St. Louis, Missouri, expressed this sentiment at the Dallas meeting, which should find a ready response from all members of the medical profession, as well as from all men of good will:

> Let us hope we can overcome the myth of omnipotence and learn that the proper use of science is not to conquer the world, but to live in it.

Massachusetts Physician
October, 1969

COMMENT . . .

Our Readers Write

Dear Doctor Finnegan:

I have just received the December issue of MISSOURI MEDICINE. It was a pleasure to turn the pages to see what was in the magazine until I saw in large type, "100 Docs. . . ." This is degrading to our noble profession, and it is an insult to the individual practitioner. For a person who has struggled long and hard to get through the training during a time when there were few, if any, grants and scholarships, and who paid his own way because he wanted to be a "Doctor," this is the living end!

Personally, I consider myself and every graduate of a medical school a Doctor Physician, and anything else is superfluous. It is a sad day for some of us who spent a quarter of a century trying to be a good doctor to be referred to as "Doc."

What does "Doc" mean—a physician? A dentist? A school teacher? A preacher? A veterinarian? A pharmacist? A filling station operator? Or a Walt Disney character? I have never answered to the term "Doc" and I never intend to, and it jolly well stirs up all the undesirable characteristics of my Germanic and French background to have the official journal of my professional society refer to any or all of the membership as "Doc."

I hope that I am not the only Doctor who doesn't like these Mickey Mouse titles, that I am not the only one who responds to the article on page 929 and that this and any other responses remain in the editor's files from now on.

Sincerely yours,
CARL D. SIEGEL, M.D., M.S.P.H.
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County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

Buchanan County Medical Society

The annual dinner and installation of officers of the Buchanan County Medical Society was held at Moila Club in St. Joseph on Dec. 5, 1969. Dr. John L. Mothershead, retiring President, served as installing officer and presided at the meeting.

Officers to serve in 1970 are Drs. Owen W. D. Craig, President; Sharon E. Waggoner, President-Elect; Lawrence H. Pifer, Vice-President; E. F. Butler, Secretary; and Robert W. Kieber, who began his 17th one-year term as Treasurer. Dr. Wilbur P. McDonald was named to the Board of Censors.

MSMA Delegates are Drs. Richard V. Riddell, John T. Rogers and William B. Rost; Alternate Delegates are R. Philip Acuff, Allen I. Herman and Ernest E. Weinand. Dr. Edmund W. Kline was named to the Committee on Public Policy. Dr. John R. McDaniel was named to the Board of Trustees for a five-year term and Dr. Mothershead was added to the Executive Secretary Committee.

Mr. Cloyd Cee entertained at the piano during the social period preceding the dinner. Arrangements for the event were made by the Program Committee, namely Drs. Carlyn M. Kline, Chairman; William A. Challener III and Philip C. Lehman.

Lawrence H. Pifer, M.D., *Secretary*

Grand River Medical Society

The Grand River Medical Society held its annual Christmas Dinner meeting at the Chillicothe Country Club on Dec. 11, 1969.

Following a social hour, the members and their wives and guests enjoyed dinner at tables featuring beautiful Christmas decorations by the Woman's Auxiliary.

Honored guests were MSMA President Doyle C. McCraw and Mrs. McCraw; MSMA President-Elect Joseph L. Fisher and Mrs. Fisher; First District Councilor Joseph Martin and Mrs. Martin; MSMA Executive Secretary Ray McIntyre; and MSMA Field Secretary, Royal O. Cooper.

Honored guests at Grand River Medical Society's annual Christmas dinner included (left to right) First District Councilor, John N. Martin; MSMA President Doyle C. McCraw; Mrs. Martin; Mrs. McCraw; Dr. Jack L. Vinyard, President of the Society; MSMA Executive Secretary Raymond McIntire; and Mrs. Joseph L. Fisher.

Dr. McCraw addressed the Society on "Problems Confronting the MSMA." The other guests spoke briefly.

Special Christmas music was provided by Mrs. Albert D. Cross who was accompanied by Mrs. Ralph W. Bohnsack. Mrs. Jack L. Vinyard distributed gifts from around the world to various Society members and guests.

Windsor B. Atcheson, M.D., *Secretary*

SIXTH DISTRICT

COUNCILOR
WILLIAM D. BRADSHAW, M.D., CLINTON

West Central Missouri Medical Society

Members of the West Central Missouri Medical Society and their wives enjoyed a dinner meeting at the Country Club in Nevada on Dec. 11, 1969.

Special guests were Dr. Vernon E. Wilson, Vice-President for Academic Affairs, University of Missouri-Columbia and Dr. E. Grey Dimond, Director of Health Sciences Development, University of Missouri-Kansas City, who discussed the "Proposed Medical School, University of Missouri at Kansas City."

Roy W. Pearse, Jr., M.D., *Secretary*

NINTH DISTRICT

COUNCILOR
E. A. STRICKER, M.D., ST. JAMES

South Central Counties Medical Society

The South Central Counties Medical Society met on Dec. 3, 1969 at the Holiday Inn in West Plains. Dr. and Mrs. A. T. Walker were hosts for the evening.

After dinner, Robert B. Stewart, M.D. of Springfield gave an interesting discussion on "Newer Advances in Eye, Ear, Nose and Throat."

Those in attendance were Dr. and Mrs. Robert B. Stewart of Springfield, Dr. and Mrs. A. T. Walker, Dr. and Mrs. Rollin H. Smith, Dr. and Mrs. Joe Wall, Dr. and Mrs. M. L. Fowler, Dr. and Mrs. W. T. Morgan, Dr. and Mrs. C. W. Cooper, Dr. and Mrs. Amos Coffee, Dr. and Mrs. James Hasek, Dr. and Mrs. Jack Wiles and Dr. Martin Hasek.

A business meeting followed the scientific session. The next scheduled meeting will be on Jan. 28, 1970.

Jack N. Wiles, M.D., *Secretary*

TENTH DISTRICT

COUNCILOR
EUGENE T. HANSBROUGH, M.D.,
POPLAR BLUFF

Mineral Area Medical Society

The 18th Annual Medical-Legal Banquet, sponsored by the Mineral Area Medical Society and the Bar Association of this Judicial Circuit, was held on Dec. 9, 1969 at the Empire Country Club near Farmington.

Edwin Carter, M.D., Professor of Orthopedic Surgery at St. Louis University and attending orthopedic surgeon at St. John's and St. Mary's Hospitals in St. Louis, presented the program, a discussion of the medical aspects of whiplash injuries.

Lawyers present included John Reid, Jerry Schnapp, Morris Graham, Raymond R. Roberts, Stanley Murphy, Charles Hyler, Gary Wagner, E. L. McClintock, Curt Vogel, Mr. and Mrs. Milton Schnebelen, Marvin Dinger, Edward Bust, Oliver Rasch and Frank G. Mack. Judge J. O. Swink of Farmington, Judge Lawrence J. Casey of Potosi and Walter Sonntag of Farmington also were present.

The following physicians attended the meeting: Drs. Harry Yoskit, Harold E. Donnell, William Ford, Retus Osborn, David Mainz, Arthur Newcomb, Marvin Menne, Robert Dettmer, C. H. Appleberry, John Hunt, Stanton Hardy, Paul Dennis, Andrew Fraser, Edward Mardini, Jack Mullen, George Oliver, Alvan Karraker, Juan Cancelada, C. E. Carleton, C. W. Chastain, T. R. Burcham, Ray Wolf, Ava Wolf, Vincent Lau, J. Picardo and R. Mohapatra.

Charles W. Chastain, M.D., *Secretary*

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New Members

Ulises C. Alvarez, M.D., 5400 Arsenal, St. Louis, has become a member of St. Louis County Medical Society. Dr. Alvarez is a native of Havana, Cuba, received his preliminary education at the Institute of Havana and his M.D. degree at Havana University in 1951. He specializes in internal medicine.

William R. Conley, M.D., St. Joseph Hospital, Kirkwood, has become a member of St. Louis County Medical Society. Dr. Conley is a native of Detroit, Mich., received his preliminary education at the University of Notre Dame and his M.D. degree at Loyola University in 1954. He specializes in radiology.

Darryle C. DeVivo, M.D., 500 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. DeVivo is a native of Everett, Mass., received his preliminary education at Phillips Academy and Amherst College and his M.D. degree at the University of Virginia in 1964. He specializes in pediatric neurology.

Richard G. Fish, M.D., 4370 Forest DeVille Dr., St. Louis, has become a member of St. Louis County Medical Society. Dr. Fish is a native of St. Louis, received his preliminary education at Southeast Missouri State Teachers College and his M.D. degree at St. Louis College of Physicians and Surgeons in 1919. He specializes in EENT.

Charles P. Gauthier, M.D., 2316 E. Meyer Blvd., Kansas City, has become a member of Jackson County Medical Society. Dr. Gauthier is a native of Williston, N. D., received his preliminary education at St. Martins College and his M.D. degree at St. Louis University in 1962. He specializes in pathology.

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Elliott F. Gellman, M.D., 485 Wildwood Pk., Ballwin, has become a member of St. Louis County Medical Society. Dr. Gellman is a native of St. Louis, received his preliminary education at the State University of Iowa and his M.D. degree at the University of Missouri in 1961. He specializes in pediatrics.

Douglas A. Huewe, M.D., 609 Cherry, Springfield, has become a member of Greene County Medical Society. Dr. Huewe is a native of Trent, S. D., received his preliminary education at the State University of South Dakota and his M.D. degree at Marquette University in 1965. He specializes in dermatology.

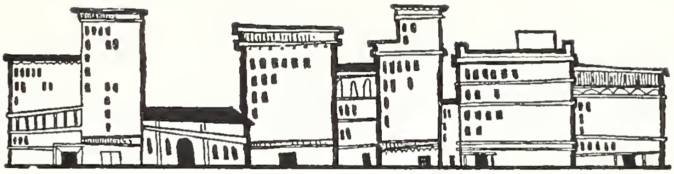
Charles L. Jobe, M.D., 1211 Glenstone, Springfield, has become a member of Greene County Medical Society. Dr. Jobe is a native of Oklahoma City, Okla., received his preliminary education at the University of Oklahoma and his M.D. degree at the University of Oklahoma in 1961. He specializes in internal medicine.

Ben D. McCallister, M.D., 4320 Wornall Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. McCallister is a native of Fort Worth, Tex., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1957. He specializes in internal medicine and cardiology.

William E. Rinck, M.D., 5933 Rockhill Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Rinck is a native of Kansas City, received his preliminary education at Tulane University and his M.D. degree at the Catholic University of Louvain in Belgium. He specializes in psychiatry.

Sterling B. Suddarth, M.D., 4240 Blue Ridge Blvd., Kansas City, has become a member of Jackson County Medical Society. Dr. Suddarth is a native of Kansas City, received his preliminary education at Dartmouth College and his M.D. degree at the University of Pennsylvania in 1947. He specializes in pediatrics.

From the Medical Schools



MISSOURI UNIVERSITY

Dr. Hans O. Mauksch, professor of sociology and head of the Section of Health Care Studies at the School of Medicine was a visiting lecturer on January 26 at the Medical College of Ohio where he discussed the role of the allied health professions in modern medicine and the part of social organizations in the etiology, treatment and rehabilitation of diseases.

During January, Dr. Mauksch also participated in two site visits for the U. S. Public Health Service at State University of New York Medical Center in New York City and at the University of Michigan, Ann Arbor.

Dr. Frank B. Engley, Jr., professor and chairman of the Department of Microbiology has been named a consultant editor of two British journals, *Microbios* and *Cytobios*. *Microbios* is a trans-world biomedical research journal devoted to fundamental studies of viruses, bacteria, micro-fungi, microscopic algae and protozoa. The companion journal, *Cytobios*, publishes original investigations into all aspects of cell organization, emphasizing work at the chemical and molecular levels.

In the past, Dr. Engley has been on the editorial board of *The Journal of Bacteriology*, official publication of the American Society for Microbiology; *Health Laboratory Science*, publication of the laboratory section of the American Public Health Association; and *Stedman's Medical Directory*.

Deaf and severely hard of hearing preschool children are being aided by a teaching program recently initiated at the Medical Center of the University of Missouri-Columbia.

Conducted by Dr. Robert Cozad, audiologist, and Miss Madelon Goetzinger, teacher of the deaf, the program is aimed at helping children learn language and speech. Initially, most of the children are expected to come from the central Missouri area for their lessons at the Medical Center.

Parents are an important part of the program for they are taught to work with their children at home. In Columbia, Miss Goetzinger has conducted some lessons for these handicapped children in their own homes in order to teach parents to use the natural home setting to reinforce and encourage continual use of language and residual hearing.

The new program has been made possible by a grant from the Missouri Crippled Children's Service. There is no charge for this instruction service, Dr. Cozad said.

Parents interested in enrolling their child or in obtaining more information about the program should contact Dr. Samuel D. Richards, Chief of Speech and Hearing Services, Department of Physical Medicine, University of Missouri Medical Center, Columbia, Mo. 65101.

Miss Jean Lyons has recently joined the staff of the Multiple Handicap Clinic at the Medical Center of the University of Missouri-Columbia as public health nurse consultant. She is a graduate of St. Louis University and recently has been employed by the St. Louis County Health Department.

ST. LOUIS UNIVERSITY

The establishment of the Robert H. Felix Diagnostic and Treatment Service of the National Institute of Mental Health Clinical Research Center in Lexington, Ky., honoring Dr. Felix, dean, St. Louis University School of Medicine, has been announced by the National Institute of Mental Health.

Dean Felix was the first director of the National Institute of Mental Health, serving in that post from 1949 to 1964.

Dr. Felix

As chief of the Public Health Service Division of Mental Hygiene from 1944 to 1949, he helped to develop the National Mental Health Act passed by the Congress in 1966 and to lay the groundwork for the national health program which he was later chosen to administer.

Mrs. Jill Knight, a member of parliament from Birmingham, England, visited the School of Medicine's gynecology and obstetrics department at the St. Louis University Hospital on Dec. 8, 1969. She delivered an address, "The British Abortion Act," and visited the laboratories of Dr. Denis Cavanagh, professor and chairman of the Department of Gynecology.

Dr. Cavanagh spoke on "Abortion" on *The Advocates*, a national educational television station, on November 1. The show was telecast in Los Angeles. He also attended the American Medical Association meeting in Denver, where he spoke on "Abortion" in late November.

Dr. George Miller, director of research in medical education at the University of Illinois, led a medical curriculum forum on December 11 to study the trends in medical education at St. Louis University. The program, sponsored by Alpha Omega Alpha, honor medical society, offered an opportunity for students and faculty to openly discuss the medical curriculum.

Dr. Nicholas R. Di Luzio, professor and chairman, Department of Physiology, Tulane University School of Medicine, delivered a lecture entitled "Macrophage Recognition Dysfunction—a New Clinical Entity" before the annual meeting of the Missouri Section of the Society for Experimental Biology and Medicine, which was hosted by the St. Louis University Medical School's Department of Physiology. Dr. Leo C. Senay, Jr., professor of physiology, was program chairman. Dr. Senay also gave a paper entitled "Accumulation of Protein During Dehydration and Heat Exposure."

Dr. Hartmut Kannegiesser, a resident in internal medicine, has been awarded a research fellowship by the National Kidney Foundation for the support of continued renal metabolism studies under the direction of Dr. James B. Lee, director, Department of Experimental Medicine. The one-year renewal becomes effective in June of 1970.

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Dr. Edwin E. Westura, associate professor of internal medicine and director of the Stress Physiology Laboratory at the St. Louis Uiversity Hospital, and Dr. Kenneth E. Walter, assistant professor of internal medicine will be among program participants in *A Day of Cardiology* to be sponsored by the St. Louis Heart Association, Missouri Heart Association and St. Louis Medical Society on February 14. The day-long program will be held from 9 AM to 4:30 PM in the Medical Society's auditorium. There will be no registration fee.

WASHINGTON UNIVERSITY

Washington University School of Medicine's newest basic science facility, the Division of Communicative Disorders at 724 South Euclid Ave., was officially opened with the unveiling of a plaque on Dec. 19, 1969.

Joseph H. Ogura, M.D., Lindburg Professor and head of the Department of Otolaryngology, and William H. Danforth, M.D., Vice-Chancellor for Medical Affairs, welcomed the guests, all of whom contributed to the refurbishing. Special thanks were extended to W. Ashley Gray, Jr., president of General Steel Industries, Inc., who directed the drive to collect funds to renovate the south wing of the former Shriners' Hospital for Crippled Children.

Under the direction of William F. Marovitz, Ph.D., and David Crowley, Ph.D., both assistant professors of otolaryngology, studies are being conducted on the biology involved with communications. Research includes that concerning development of the bone surrounding the hearing organ, changes in the hearing level associated with endocrine disfunction and scanning electronmicroscopy of the hearing receptor.

The 10,000 square-foot space that for 39 years was occupied by children in beds and with rehabilitation equipment, has been converted to laboratories, offices, workshops, a darkroom and a conference room.

Fifteen senior students at the School of Medicine have been elected to membership in Alpha Omega Alpha, an honorary society recognizing outstanding scholarship and leadership in medicine and related fields.

Missourians to be initiated include Bruce H. Becker, Robert C. Brasch, Stephen A. Kamenetzky, Michael S. Milder and Marilyn A. Mollman. All are from St. Louis.

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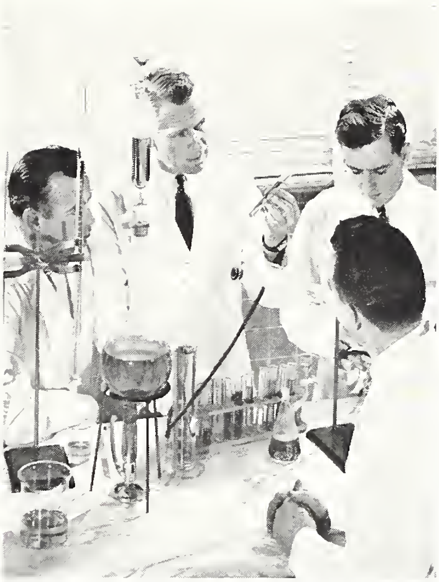

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The Council Reports:

(Continued from page 87)

tificate has made the reporting of maternal deaths incomplete and misleading. He stated that the Bureau of Vital Statistics has promised to include this question on the death certificate after Jan. 1, 1970.

The Committee recommends that the MSMA endorse a community-wide program of mass rubella vaccination for children of age one to puberty.

After discussion, the Report of the Maternal Welfare Committee was accepted on motion of Dr. McAlhany, duly seconded and then referred to the Legislative Matters Committee.

PROPOSED CHANGES IN DISABILITY INCOME INSURANCE PROGRAM FOR MEMBERS

Mr. O'Brien stated, that some 25 years ago, the Association had endorsed a program of disability insurance for its members on a voluntary basis, administered by the Eggert-Carroll-Schroeder Agency in St. Louis and the Altman-Singleton Agency of Kansas City. This program has been in effect ever since. He introduced Mr. Art Humphrey of the Eggert-Carroll-Schroeder Agency who gave a brief explanation of the changes proposed, which would offer additional advantages to younger members while maintaining current advantages for older members. He also explained a proposed guaranteed renewal program. He mentioned that a letter would be sent to the membership explaining these changes in detail, if the Council approved.

After further discussion, on motion of Dr. Kerr, duly seconded, the proposed changes were approved.

Mr. Mothershead announced that St. Louis County Medical Society was sponsoring another tour, this one to Africa, which is scheduled to leave on Oct. 13, 1970. He stated that further information would be forthcoming.

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REPORT OF THE PRESIDENT OF THE WOMAN'S AUXILIARY TO THE MSMA

Mrs. Pat Reid, President of the Woman's Auxiliary, stated that it was a real pleasure for her to have the opportunity to attend the Council meeting and to meet the Council and Officers. She said it had been enlightening and enjoyable to work with Dr. McCraw, the Advisory Council and Mr. McIntyre. She stated the real reason for the Auxiliary is to be of help to all the doctors. She said this year the Auxiliary has stressed Health Manpower, Health Careers in Allied Fields, etc. She emphasized that if the Auxiliary can be of help to the Association at any time, to please call on them.

AMA DELEGATE'S REPORT

Dr. Washburn presented the following report of the highlights of the Clinical Session of the AMA which was held in Denver on Nov. 30-Dec. 4, 1969.

"The Missouri State Medical Association was well represented officially at the American Medical Association's meeting in Denver earlier this month with all four of our state delegates and four alternates in attendance along with our Association's President, President-Elect, Immediate Past-President and Council Chairman, as well as a number of members.

"Delegate Arthur W. Neilson was Chief Teller for the House of Delegates and Dr. Stanley Peterson was a member of Reference Committee G. Dr. Wendell G. Scott of St. Louis again served as the Delegate from the AMA's Section on Radiology.

"Our delegation introduced one resolution, No. 42, concerning Social Security Regulations Relative to Part B Payments of Medicare in Teaching Institutions. The Resolution was discussed before Reference Committee B, which suggested the following substitute *Resolve:*

> *Resolved*, That the Board of Trustees and the Social Security Administration immediately take measures to effect clarification of the regulations spelled out in SSA Letter # 372 to Part B Intermediaries to the end that Medicare payments for bona fide medical services rendered by or under the supervision of physicians in teaching institutions will be resumed.

"Both the resolution and the substitute *Resolve* were referred to the AMA Board of Trustees by the House of Delegates.

"On Saturday, before the opening of the AMA meeting, a number of those in attendance from Missouri attended an all-day session on Peer Review.

"During the meeting, organized medicine was warned that effective peer review mechanism may be the last bulwark against encroachment of its obligation to set standards for medical practice and quality of care.

"The program featured a number of speakers who have been involved in peer review programs along with two panels—one included members of a hospital utilization and review committee, the other included members of a county medical society's peer review committee.

"AMA President Dr. Gerald Dorman opened the Sunday session of the House of Delegates with a challenge that the organization must establish or see to the establishment of a workable system of patient care for all the people of the nation and to strengthen the AMA so it is relevant to all physicians.

"He said that the AMA needs to attract physicians who are educators, researchers, administrators and those in federal service as well as those in private practice. He also urged a program to attract future physicians to the AMA.

"Dr. Dorman said that the AMA must become 'patient-oriented' and prove to the public through visible action that we are patient-oriented.

"The following are among the more important actions of the House of Delegates taken in session on Sunday afternoon, all day Tuesday and Wednesday morning:

"The House voted down a resolution urging revision of state laws so abortion would be available on demand. Instead, the House voted to reaffirm the present AMA policy statement on therapeutic abortion.

"The House referred to the Board of Trustees a recommendation that the Berry Plan for physicians to serve in the military service be changed to allow physicians to serve in areas where physicians are in short supply.

"The House voted to establish a committee on private practice of nine members to encourage and promote the private practice of medicine and to develop new methods to promote the private practice of medicine throughout medical schools, graduate and postgraduate training.

"The House adopted a report of the Committee on Health Care for the Poor which calls for (1) increased financial support of health programs for the poor, (2) provisions of methods to attract and retain physicians and allied health professionals in areas of need, (3) development of educational materials relevant to the cultural backgrounds of the poor and minority groups, (4) assurance of adequate nutrition, (5) elimination of quackery and (6) increased participation of minority-group physicians in AMA Activities.

"The House urged the Council on Medical Education and specialty boards to move forward with the acceptance of qualified osteopathic physicians into their training programs and specialty board examinations.

"The House called marihuana a dangerous drug, pointing out that sale and possession should not be legalized. Additional research was encouraged and it was recommended that offenders should be handled on individual basis, including treatment and rehabilitation.

"The House voted to discontinue as soon as possible the AMA's Institute for Biomedical Research because 'it is impractical for AMA to continue to meet increasing financial burden for its support.'

"The House voiced concern about the fragmentation of medicine through rapidly increasing numbers of Washington offices established by specialty societies and urged AMA to seek to coordinate efforts of all segments of profession in their relation with federal government.

"The House adopted a resolution strongly opposing as discriminatory a Senate Finance Committee amendment which militates against professional corporations.

"The House approved the idea of the AMA using its influence to produce legislation which would provide educational monies for new medical schools and to assist present medical schools.

"In the malpractice field, the House called for state and county medical societies to explore with counterpart hospital associations the development of workshops designed to prevent medical accidents in hospitals, called attention to a recommendation of a Board of Trustees report concerning sponsorship of professional liability insurance programs by medical societies on a state or regional basis and voted to request that the board of Trustees continue the urgent priority in the search for the solutions to the crisis of professional liability and liability insurance. The House also voted to ask each State Association to supply to the AMA Headquarters copies of proposed legislation, proposed programs and other pertinent data so that such information can be disseminated.

"The House also approved a resolution calling for the promotion of environmental health. (Copies of this resolution were given to Council members present.)

"Considerable discussion during the AMA meeting centered on a report of a Committee on Long Range Planning and Development which is commonly referred to as the Himler report, named after the committee's chairman, as well as a minority report on the same subject by Dr. John Budd.

"The House voted to establish a permanent Committee on Long Range Planning and Development but, in the interim, to establish an Ad Hoc Committee on Long Range Planning and Development to include one member of the Board of Trustees, five members of the House, two AMA members at large and a member of SAMA. This Ad Hoc committee is to receive both the Himler Report and the minority report, as well as all other reviews and correspondence on the subject, and is to study and make recommendations concerning the structure of and the charge to the permanent Long Range Planning Committee. These recommendations are to be reported to the House next June.

"The House also voted to transmit both the Himler report and the minority report to component state medical societies for study and possible resolutions and recommendations to be made next June.

"The copies of the Himler Report and the minority report as well as the recommendations of the Reference Committee, are available on a limited basis for your study."

Dr. Miller proposed that the Himler Report be submitted to a committee composed of the AMA Delegates of MSMA (to be assisted by an Alternate Delegate if the Delegate could not be present), to assist in studying the contents of the Himler Report and the minority report and have it brought back in some detail to the Council so it can be studied wisely. It was suggested that a member of the Council also be included on this committee and that the Council make recommendations to the MSMA House of Delegates so that the Association can make a decision at the time of the annual session and make a firm statement through the House of Delegates regarding the feeling of Missouri physicians about all or many of the 57 items in this report. Dr. Miller then added Drs. Gunn and Bradshaw to the above committee. He voiced his approval of the recommendations and proposed that the Committee meet and report to the Council at its next meeting. Dr. Benoit was appointed chairman of this special committee.

On motion, duly seconded and passed, Dr. Washburn's AMA Report was accepted and approval was given for the appointment and charge of the special committee relating to the Himler Report.

Dr. Washburn suggested that since all District Councilors have a copy of the material on the Himler Report, they read it and make their comments to the respective AMA Delegates.

POSSIBLE AMA SESSION IN MISSOURI

The possibility of an AMA session being held in either St. Louis or Kansas City in 1975 or 1976 is under consideration. The Convention Bureaus in both cities are eager to get a meeting of the AMA, possibly an Interim Session. The AMA Annual Session might be too large. Mr. McIntyre reported that the AMA policy states that the State Medical Association, as well as the local society, invite the AMA by letter to hold its meeting in that particular place.

After discussion, on motion of Dr. Kerr, duly seconded, it was agreed that the Association extend an invitation to the AMA to hold its Clinical Session in St. Louis in 1975 or 1976 and that St. Louis Medical Society and St. Louis County Medical Society also be requested to extend an invitation.

REPORT OF THE MEDICAL-LEGAL COMMITTEE

Dr. Bach presented the report of the Medical-Legal Committee in the absence of the Chairman, Dr. Yancey. The Committee met on Dec. 7, 1969, in Columbia for the purpose of discussing evaluation panels for alleged malpractice cases and other items. However, a quorum was not present.

It was recommended to the Council that a group plan of professional liability insurance not be proposed by MSMA.

The Committee considered the possibility of countersuits brought by physicians if they are successful in their defense of a case and agreed it appears to have merit. The Committee, therefore, recommends that MSMA adopt a policy encouraging countersuits.

The Committee also recommends to the Council that similar to the California Bill # 259 be drafted and introduced. This legislation authorizes the defendant in malpractice cases to require the plaintiff to post bond as security for cost of defense which may be awarded against plaintiff. It requires plaintiff to pay defendant's court costs upon dismissal of the action or on award of judgment to the defendant.

The Committee also recommends that in cooperation with the Hospital Association, joint workshops on the prevention of medical accidents in hospitals be held as advocated by AMA House of Delegates in Denver. They stated that we believe these workshops to be worthwhile for both groups and discussions should be encouraged at all levels of patient care.

The Committee also recommends the publication of malpractice and professional liability articles in MISSOURI MEDICINE. The Committee and staff will work to develop these articles for publication.

After discussion, the Council accepted the report of the Medical-Legal Committee and referred that portion of the report regarding proposed legislation to the Legislative Matters Committee.

REPORT OF THE COMMITTEE ON ENVIRONMENTAL HEALTH

Dr. Neilson presented a progress report on the activities of the Committee on Environmental Health. After polling the MSMA Committee and meeting with the St. Louis Medical Society Environmental Health Committee, Dr. Neilson forwarded to the Governor a statement of need and purpose and a plan to set up an "Action Committee" to deal with the changing environmental problems. The Governor held a hearing with representatives of various organizations and, early in November, Dr. Neilson was contacted by the Governor's Office and advised that a financial grant had been secured. Dr. Neilson indicated that the Governor plans to set up an Urban Affairs Conference sometime in early 1970 and he was asked to head the Pollution-Environmental Study portion of this meeting. He stated that the Governor seemed impressed by the activity of Missouri physicians with environmental health problems and readily accepted the offer for strong backing and cooperation of the physicians of the MSMA.

Dr. Neilson indicated that the Committee has been approached by Frank Barton regarding an environmental health meeting to be held next fall with representatives from 50 state medical associations.

He expressed appreciation to the Council and Officers for their support and recommendation for his recent appointment to the AMA Council on Environmental and Public Health.

He stated that he would like to call attention to the lack of a specific budget for his MSMA Committee activities. He also stated that he plans to attend a five-state program in Scottsdale, Arizona, on Jan. 9-10, 1970 sponsored by the AMA Council on Environmental and Public Health.

Dr. Neilson indicated that his Committee, together with MSMA Legal Counsel, conferred regarding the Missouri Driver's License form to try to reduce it to one page and also to reduce possible physician liability as the result of signing any such forms. He asked the Council for approval of the proposed revised form. Motion was made and seconded and it was voted to approve the form. The proposed new form will be referred to the Missouri Department of Revenue Driver's License Section.

Dr. Neilson further reported that the MSMA Committee on Environmental Health held a luncheon meeting with the St. Louis Medical Society Environmental Health Committee on Nov. 24, 1969, at the request of the Air Conservation Commission of the State of Missouri. Two basic problems were discussed: (1) The correlation of health effects and air pollution on human beings with air quality control data and (2) the public health and air or water pollution resultants of improper disposal of waste material from hospitals.

Dr. Neilson stated that he has been appointed to the Governor's Environmental Quality and Health Task Force, which works out of the Governor's Advisory Council for Comprehensive Health Planning.

He further stated that Michigan's Resolution # 55 on promoting environmental health was approved by the AMA House of Delegates at the Clinical Session.

Motion was made and seconded that the Council accept this report. The motion carried.

Discussion followed regarding the budget request by the Committee on Environmental Health. Dr. Neilson indicated that he would like to draw up for the Council a firm budget for the Committee and present it at the next Council meeting.

REGIONAL BLOOD INVENTORY SYSTEM

Dr. William Mayer was asked to brief the Council on a proposed regional blood inventory system, which was submitted to the Missouri Regional Medical Program for funding. The funding requested for the first year was $82,000. This project was submitted jointly by the Department of Pathology and the Department of Industrial Engineering at the University of Missouri. The purpose of the proposal is to establish a matrix for better distribution of blood in Missouri. He indicated that the proposal has been discussed with the Red Cross and has been approved by the MRMP Advisory Council and forwarded to the Division of Regional Medical Programs in Washington for their consideration. Dr. Mayer discussed some of the problems involved in the distribution of blood at the present time and felt that this proposal, if approved, would alleviate many of these problems. Motion was made and seconded that the Council go on record in support of this project. The motion carried.

PROPOSED OUTPATIENT CLINIC AT M.U. MEDICAL CENTER

Dr. William Mayer then gave an informational report regarding the proposed outpatient clinic-school of nursing building for the University of Missouri Medical Center complex. He indicated that a request for funds for this purpose has been made to the State Legislature in the last two sessions. Dr. Mayer stated that the original outpatient clinic building was designed for 45,000 outpatient visits per year and, during this last year, it has functioned at double the level for which the structure was developed. The proposed structure would enable 125,000 outpatient clinic visits per year. Construction of this clinic facility would enable the conversion of the existing outpatient clinic's activity into a comprehensive and continuing care program for patients within the medical center setting and would provide the basis of a markedly expanded family practice residency program. Dr. Mayer indicated that due to critical space limitations, enrollment in the School of Nursing has been limited. The new building would make it possible to increase the number of nurses admitted to the baccalaureate program and also the number of nursing graduate students considerably. Dr. Mayer indicated that construction of this building would enable the school to produce much-needed, well-educated nurses for the state. He stated that if matching funds are not forthcoming from the State Legislature this year, the federal funds will be rescinded and they would then have to start from the beginning. Dr. Miller thanked Dr. Mayer for his informational report.

REPORT OF THE COMMITTEE ON TUBERCULOSIS

Dr. Florence MacInnis was called upon to give a report of the Tuberculosis Committee. Dr. MacInnis reported that a joint meeting of the MSMA Committee on Tuberculosis, Missouri Thoracic Society Executive Committee and the Missouri Tuberculosis and Respiratory Disease Association was held recently. Mr. Gail Bank, representing the Continuing Medical Education Program of Missouri University, was in attendance and explained the telelecture program operating in 52 hospitals in Missouri. Dr. MacInnis reported that she recently attended a demonstration of this program at St. Joseph's Hospital in Kansas City. Future plans are to sign up 45 additional hospitals. The program is basically a two-way telephone system. The base headquarters is located at Missouri University. Funds for this program are provided through the Missouri Regional Medical Program. The Committeee felt that publicity for the program could be gained through Missouri Medicine and *The Missouri Family Doctor,* plus publications of the Missouri Tuberculosis and Respiratory Disease Association. The joint committees endorsed and recommended participation in the telelecture program.

Dr. MacInnis indicated that Dr. Brasher had reported on a publication prepared by the Division of Health, *Chemotherapy in the Treatment of Tuberculosis.* The publication is to aid nurses in understanding drug therapy for tuberculosis and, at the present time, is being studied for possible revision. Dr. Brasher further reported that his Department of Medicine at Mount Vernon is writing a related article on drug therapy which will be offered to Missouri Medicine for publication.

Dr. MacInnis stated that discussion was held regarding present policy in the use of INH and PAS and other chemotherapeutic drugs for tuberculosis, particularly regarding certain side effects. She further stated that attention was called to the Tri-State Clinical Meeting on March 6-8, 1970 at the Marriott Hotel, Chicago, Ill.

Dr. MacInnis indicated that Dr. Belden had reported that, pending organization of hospital care of tuberculosis patients, a program for drug therapy is being held in abeyance. It was suggested that a preface be inserted in all written publications with regard to chemotherapy so that content would be accepted as caution or warning rather than policy. Motion was made and seconded that the report of the Committee on Tuberculosis be approved. Motion carried.

REPORT OF LEGAL COUNSEL

The Chairman called on Legal Counsel for a decision regarding the possible change from Robert's Rules of Order to Sturgis. Counsel indicated that, at this time, he could see no reason for changing the Council's parliamentary procedure.

UNIFORM ANATOMICAL GIFT ACT FORMS

Dr. William Allen gave a brief talk regarding the Uniform Anatomical Gift Act and the proposed forms to be used. He indicated that, at the present time, the Uniform Anatomical Gift Act has been passed in 39 states. The bill introducing this legislation in Missouri is known as Senate Bill # 43 and did pass. Copies of the proposed uniform donor forms were distributed to Council members. Dr. Allen indicated that *Modern Medicine* had agreed to print articles regarding the Uniform Anatomical Gift Act and, also to print copies of the forms to be used. Discussion followed regarding distribution of these forms and where they could be obtained. Dr. Allen indicated that this had not definitely been decided, but felt that it would be through the medical schools, osteopathic schools, Lions' Eye Bank, Kidney Foundation and other similar organizations. It was brought out that possibly the Division of Health might be the likely central distribution point for the donor forms. The motion was made and seconded to approve the forms and mechanism as discussed by Dr. Allen. Motion carried.

AMA COUNCIL ON MEDICAL SERVICE

Dr. Washburn indicated that at the last Council meeting in St. Louis, the Council went on record as approving recommendation of Dr. Neilson for the Council on Environmental and Public Health of the AMA and as approving recommendation of Dr. Benoit for the AMA Council on Medical Service. Dr. Washburn asked for reaffirmation of the recommendation of Dr. Benoit. It was moved, seconded and passed that such recommendation be made.

Dr. Kerr stated that he had received a letter from the "People to People Program" in Chicago regarding a proposed European tour of physicians. Starting in Brussels, the tour would include Finland, Russia and other Iron Curtain countries. The trip is for the purpose of looking over the medical installations. Dr. Kerr asked for the endorsement of the Council regarding his participation in promoting this tour among MSMA membership. A motion that the Council endorse his participation was made, seconded and passed.

EMERGENCY HELICOPTER AMBULANCE SERVICE

At the request of Dr. Robert Kelley, Chairman of the MSMA Committee on Comprehensive Health Planning, Mr. Carroll of the MSMA staff reported on a meeting of the Governor's Advisory Council on CHP (of which Dr. Kelley is a member) held in St. Louis on December 12. At that time the Advisory Council received from the Governor a request that the Council study a proposed emergency helicopter ambulance service for the St. Louis area as proposed by Mr. O'Holloran of St. John's Mercy Hospital. The Governor's Advisory Council directed its Task Force on Accessibility to Health Services to study the proposal. Mr. Carroll stated that Dr. Kelley indicated he thought the MSMA Council might be interested in offering the cooperation of the MSMA in the study of the project.

Dr. Richardson Noback, Acting Dean, University of Missouri—Kansas City, School of Medicine, indicated that it was a pleasure to be present at the meeting and expressed his appreciation for the support of MSMA and the Jackson County Medical Society regarding the Medical School at Kansas City.

AMA JUDICIAL COUNCIL

Dr. Miller gave a brief report on a regional meeting in Chicago sponsored by the AMA Judicial Council with representatives from seven midwestern states in attendance. He indicated that many points were covered including bank cards, lay laboratory advertisements and a real introduction into peer review. Dr. Miller stated that developments in various state mechanisms for Judicial Council activity at the county and state levels were brought out. He further indicated that he felt the meeting was worthwhile and that MSMA should continue to send representatives to such conferences.

REPORT OF MEDICAL ECONOMICS CONTRACT COMMITTEE

The Chairman called on Dr. Wiegand, Chairman of the Medical Economics Contract Committee, for a report regarding his Committee's activities. Dr. Wiegand said that the Medical Economics Contract Committee held a meeting in Jefferson City on November 16. At this meeting, Dr. Froelich, chairman of a special subcommittee of the Medical Economics Contract Committee, gave a report regarding a meeting with Division of Welfare officials. The special subcommittee was set up to "discuss Medicaid payment procedures with Mr. Carter and review these procedures in light of the agreements when the program went into effect." Dr. Wiegand indicated that Dr. Froelich presented the following three recommendations of his subcommittee in light of the problems regarding Medicaid:

1. Establishment of a liaison committee to function between the Medical Economics Contract Committee and the Division of Welfare.

2. That the Medical Economies Contract Committee make efforts to establish a group of visiting physicians recommended by members of MSMA and approved by the President of MSMA to assist the Division of Welfare in evaluating the practice of specific physicians under the Title XIX Program, when such assistance is requested by the Division of Welfare.

3. That specialty groups Review Committees originally established and set up at the beginning of the program be more effectively used by the Division of Welfare working through MSMA.

Dr. Wiegand indicated that discussion followed regarding the recommendations of the subcommittee. It was suggested that the MSMA staff contact the specialty organizations, giving them a list of the Review Committee members for their organizations and asking whether or not the list is up to date. Also included with this list would be background information regarding the Medical Economics Contract Committee, including the duties of the Review Committees.

Dr. Wiegand reported that the Committee voted to recommend to the Council the establishment of a special small liaison committee with the Division of Welfare, as proposed by the subcommittee, with the Council to name the members of the liaison committee.

He further indicated that the Medical Economics Contract Committee approved Recommendations # 2 and # 3 of the subcommittee regarding the physician visitation program and more effective use of the Review Committees, with the MSMA office sending out the information indicated in Recommendation # 3.

Dr. Wiegand indicated that the following statement was adopted by the Committee regarding alternatives available to the Division of Welfare on May 1, 1970, when Medicaid funds may be expended in Missouri:

1. That Mr. Carter be told that it would appear to the Committee that he has two alternatives concerning Medicaid after May 1.

   a. Either that the program be discontinued after that date or

   b. That the legislature be asked for a supplemental appropriation to continue the program.

2. That the medical profession will continue to provide physician service for the program if funds run out, but this service would definitely be limited due to the lack of funds for laboratory work, drugs and hospital care.

3. The medical profession should consider publicizing the fact that it is trying to do more about improving the program through its own review mechanisms.

Dr. Wiegand reported that the following motion was adopted by the Committee, "We recommend to the Council that when the liaison committee is established, that it be asked also to investigate the possibility of establishing more formal mechanism of peer review than the present method and if such a new mechanism is established, to consider making the physician visitation program a part of the new peer review mechanism. Also, that physicians participating in this visitation program be paid by MSMA from funds made available by the Division of Welfare."

Dr. Wiegand stated that he informed members of the Committee that, in the future, they may be asked to participate in case reviews for St. Louis Blue Shield for its new UCR Program.

Dr. Wiegand indicated that he felt very careful consideration should be given to the appointments made on the Medical Economics Contract Committee and the Review Committees, stating that some members of review committees did not know they had been appointed and were not aware of their obligations. He stated that he did not know whether this could best be done by mail or by some type of orientation program at the Annual Meeting or both. He indicated that he felt very strongly about the fact that persons named to the Medical Economics Contract Committee must be interested in its functions and be willing to attend the meetings.

Dr. Miller asked permission to discuss peer review briefly and expressed his thoughts on the matter as follows: He said the problems involved were big and many and, in the first place, our peer review mechanism has not worked. He said that the peer review mechanism should be a research and educational effort. He added that it is the only mechanism we have for quality and cost control and it must be a committe effort. He stated it is wishful thinking to hope that you can have 20 specialty review mechanisms, including general practice, to do this job. He said that these men cannot sit down and take six to seven hours from their duties. If, in fact, this peer review mechanism is educational and is research, we must have it and it must be good. It has been less than effective during the past year. If it is going to work, it must be a multispecialty group. Perhaps there will be two, three or four throughout the state. Also, there must be a staff to assist when there is a need for consultants in any of the specialties. These people should be available to the Committee. Dr. Miller stated that the Welfare Department should have some part of its budget marked for this matter. He said that it certainly seems reasonable that the Regional Medical Program might help finance some of this. If it is educational or research, it could possibly be financed through RMP. We need a small committee to study and propose a practical and workable review mechansim. Let this committee look at this entire concept and what the problems have been and what is necessary to establish the proper mechanism and report to the Council. He said he was sure that all members of the Council recognize the real importance of this matter.

Dr. Miller proposed the following three names for this Ad Hoc Committee: Drs. Rae Froelich, Lebanon, as Chairman; Al Biggs, Kansas City; and Joe Peden, Jr., St. Louis. They will assess the problem, make recommendations to the Council as to peer review committee functions and committee components. In the meantime, Dr. Miller suggested that the staff proceed to project what it is going to cost and make necessary contacts to determine from where monies might come to supplement this effort.

Dr. Miller said he hoped the Council would accept the report of the Medical Economics Contract Committee and also accept his recommendation for the Ad Hoc Committee, and this Committee be launched immediately to investigate, study and report back to this Council at its next meeting with a projected plan and budget with hopefully a means of financing it.

Dr. McAlhany asked what Dr. Miller hoped this Ad Hoc Committee would accomplish.

Dr. Miller indicated that, hopefully, the Committee note what we have not done, what they think is realistic and what can be done. They may feel there should be a district or regional type of structure such as a five- or six-man peer review committee. Hopefully, they will come up with something concrete.

Dr. Peterson indicated that he felt they must define the state's responsibility and the responsibility of MSMA relating to Medicaid. There are certain areas which by law are the responsibility of the state.

Dr. Cope stated that he felt this Committee may well give careful consideration to proposals of eliminating certain troublesome individuals from the Medicaid Program. Elimination of less than 1% from the program might eliminate 90% of necessary review work.

The motion was made and seconded that the report of the Medical Economics Contract Committee be accepted. Motion carried.

A motion was made and seconded to proceed with the appointment of an Ad Hoc Committee directly responsible to this Council, as suggested by Dr. Miller, for review of this problem and to report specific recommendations to this Council at its next meeting. These appointees are to be contacted by the staff by telephone on December 15, requesting their acceptance.

REPORT OF SCIENTIFIC AND POSTGRADUATE WORK COMMITTEE

Dr. Yore gave a brief report on the Scientific and Postgraduate Work Committee and indicated that there is still one problem area concerning speakers for the 1970 Annual Session. There are several possibilities for the first program on Friday morning: Dr. Egeberg, Assistant HEW Director; Dr. Walsh of the S. S. Hope; and Dr. Jesse L. Steinfeld, new Surgeon General. It was felt by the Committee that if none of these speakers could be obtained, consideration should be given to a program on malpractice insurance or on health insurance today.

Dr. Yore stated that the Committee recommends to the Council that a modest honoraria be paid to out-of-state speakers for each day a speaker participates as a scheduled speaker on an annual meeting program, plus expenses, and that the Association not pay expenses or honorarium to Association members for participation on the Scientific Program at annual meetings, and further recommends that any communications with speakers make this policy clear.

Dr. Yore stated that Gail Bank, Director of Continuing Education at the University of Missouri School of Medicine, attended the meeting of the Committee and discussed continuing education programs. He stated that the discussion followed regarding continuing education programs and the role the state association should have in them. The following recommendation was approved for presentation to the MSMA Council: "The Scientific and Postgraduate Work Committee recognizes the great importance of MSMA leadership in the organization of a program which will concentrate on ascertaining needs of Association members in the field of continuing medical education and the meeting of these needs. Does the Council desire this committee to work in this field or should another group be named? The

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Committee believes the implementation of an over-all program in the field of continuing education has great urgency." Discussion followed Dr. Yore's report.

It was suggested that another committee at this time might be confusing and it was felt that the subject of continuing medical education and who should have charge should be held in abeyance in view of possible restructuring of the MSMA committees and the recommendations to come from the Ad Hoc Peer Review study committee. Dr. William Mayer indicated that he felt a sound continuing medical program is a very real need and hoped the Council would bring it up again for greater discussion and consideration.

A motion was made and seconded to approve the recommendation of the Committee regarding honorarium and expenses for out-of-state speakers at the Annual Session and, also, the recommendation regarding non-payment of honorarium and expenses for MSMA members on the Annual Session Program. The motion carried.

Legal Counsel indicated that he had studied the decree that was entered in the anti-trust suit brought against the American College of Pathologists and he did not believe the activities of MSMA were affected by the decree.

NEXT COUNCIL MEETING

The next meeting of the Council will be held on Friday, January 30 and Saturday morning Jan. 31, 1970, immediately preceding the Officers' Conference which will begin at 1:45 PM on Saturday afternoon. Mr. McIntyre indicated that this is the meeting at which the Council also determines material to be placed in the Handbook for the House of Delegates. The meeting will begin at 9:30 AM at Ramada Inn, Jefferson City.

The meeting adjourned at 12:10 PM.

Bureau of Narcotics Lists 15 Dont's as Physician Safeguards

The Federal Bureau of Narcotics has prepared *Dont's for the Practitioner* to protect him from narcotic addicts and abusers.

Don't leave prescription pads around; addicts may be forgers.

Don't write a narcotic prescription in lead pencil, or any ℞ at all in pencil, since they may be changed to call for morphine.

Don't write narcotics as "Morphine HT ½ # X" or "Morphine HT ¼ # 10." Several X's or zeroes can be added to raise the amount. Use brackets or spelling.

Don't carry a large stock of narcotics in your bag. Addicts are often watching M.D.s' offices and cars.

Don't store your office narcotic supply unprotected, especially near a sink or washroom. Patients may ask to use these facilities.

Don't fall for a story from a stranger claiming an ailment that usually requires morphine. The addict can produce blood sputum; simulate bad coughs or other symptoms. Make your own diagnosis.

Don't give an ℞ to anyone except the actual patient. Addicts have posed as nurses.

Don't write for large quantities of narcotics unless unavoidable. Diversion to addicts is profitable, as much as $1 for ¼ grain M.S.

Don't prescribe narcotics on the story that another physician has been doing so. Consult that physician or hospital records.

Don't leave ℞'s signed in blank for nurses to fill in. Many have been stolen by addicts.

Don't treat any ambulatory addicts. They must be under proper control; many go to several physicians at one time.

Don't dispense narcotics without keeping records, although bedside and office administration is permissible.

Don't buy your office narcotic needs on an ℞ blank. The law requires that you use an official order form.

Don't resent a pharmacist's call for verification of an ℞. He is held responsible if forgeries are filled.

Don't hesitate to call an agent of the Federal Bureau of Narcotics (at your nearest Federal Building) or the Narcotics Division of your State Department of Health if the patient is suspect. Your information will be held in strict confidence.

Do not phone in a *Class A Narcotic* ℞ except in true emergencies. Even then, the pharmacist must have a written prescription in his or his agent's hand before he can make delivery to your patient. The pharmacist or his agent may pick up the ℞ at your office or at the home before making delivery.

Violations of this section of the narcotic law may entail two to ten years imprisonment and up to a $20,000 fine for the first offense. Second and third violations are more severe.

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Number of patients	Mean initial value	Mean final value
14	3.23	4.83
16	3.50	4.40
25	4.52	4.47

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Precautions: Should not be used in patients with low urinary output unless under the supervision of a physician. In established hypokalemia, attention should be directed toward correction of frequently associated hypochloremic alkalosis and other potential electrolyte disturbances. Patients should be directed to dissolve tablet in stated amount of water to assure against gastrointestinal injury associated with the oral ingestion of concentrated potassium salt preparations.
Side Effects: While nausea has been reported in an occasional patient, K-Lyte produces no serious side effects when given in recommended doses to patients with normal renal function and urinary output. Potassium intoxication causes listlessness, mental confusion, tingling of the extremities and other symptoms associated with a high concentration of potassium in the serum.
Administration and Dosage: K-Lyte effervescent tablets must be dissolved in 3 to 4 ounces of water before taking. Adults: 1 tablet 2 to 4 times daily, depending on the requirements of the patient. Two tablets (50 mEq. of elemental potassium) supply the approximate normal adult daily requirement.
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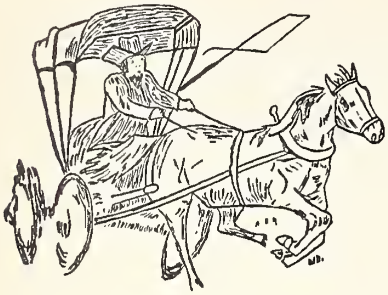

FORTY YEARS AGO

Following are two brief book reviews:

"Devils, Drugs and Doctors." The story of the science of healing from medicine man to doctor. Written by Howard W. Haggard, M.D., Associate Professor of Applied Physiology, Yale University. 405 pages. New York and London: Harper & Brothers. 1929. $5.00. This is a charming book. It is delightfully and attractively written and presents a large and comprehensive view of the history of medicine from the earliest times to the present date.

"The Technic of Local Anesthesia." Written by Arthur E. Hertzler, A.M., M.D., Ph.D., LL.D., FA.S.C.S., Professor of Surgery at the University of Kansas; Surgeon to the Halstead Hospital, Halstead, Kan. and to St. Luke's Hospital and St. Mary's Hospital in Kansas City. Fourth edition with 146 illustrations. St. Louis: The C. V. Mosby Co., 1928. $6.00. The fact that a fourth edition of this book was prepared within three years of the previous one indicates it has filled a decided need. This work has undoubtedly influenced surgeons generally and stimulated them to the greater use of this form of anesthesia. The more general use of local anesthesia is one of the most important advances in surgical progress. To the author, with his wide experience and his ability to present it, much credit is due.

TWENTY-FIVE YEARS AGO

Response of members in returning the applications to become participating physicians in Missouri Medical Service has demonstrated definitely the general interest of physicians in the plan. The response, too, indicates that Missouri physicians will support a plan under the leadership of the medical profession.

Dr. Cabray Wortley, St. Joseph, was elected president of the St. Joseph Hospital staff.—Dr. Calvin Clay has been appointed city physician for St. Charles.

Dr. William E. Leighton was elected president of the St. Louis Surgical Society at the annual banquet on January 10. Other officers elected are Treasurer, Dr. M. B. Clopton; Secretary, Dr. B. L. Byars; Board of Directors, Drs. E. L. Keyes, Omar R. Sevin, James L. Mudd, D. K. Rose, J. Hoy Sanford and Oliver B. Zeinert.

TEN YEARS AGO

Thomas A. Dooley, M.D., medical missionary in Laos and a member of the St. Louis Medical Society, returned to Laos on December 4 following many appearances in the St. Louis area. He received many honors and gifts. December 2 was proclaimed "Dr. Thomas A. Dooley Day" by the mayor of St. Louis. Dr. Dooley returned from Laos to undergo surgery for chest cancer and to raise money for foreign medical mission work.

The St. Louis Academy held its annual installation of officers on December 5 at the Le Chateau in St. Louis County. Approximately 150 people, including Academy members, their wives and guests were present to enjoy a full evening of well-organized festivities. Among the honored guests were Dr. Robert Bassett, President of the St. Louis Medical Society and Dr. Robert Kingsland, President of the St. Louis County Medical Society and their gracious wives. The following new officers for 1960 were introduced: Drs. V. E. Michael, President-Elect; Eugene W. Hall, President; W. A. Mullarky, Vice-President; E. H. Edele, Secretary; and J. F. Trigg, Treasurer.

A program before the Cape Girardeau Rotary Club, in which the need for foster homes was discussed, was under the direction of Dr. Harold D. Ridings of Cape Girardeau.

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Missouri Medicine

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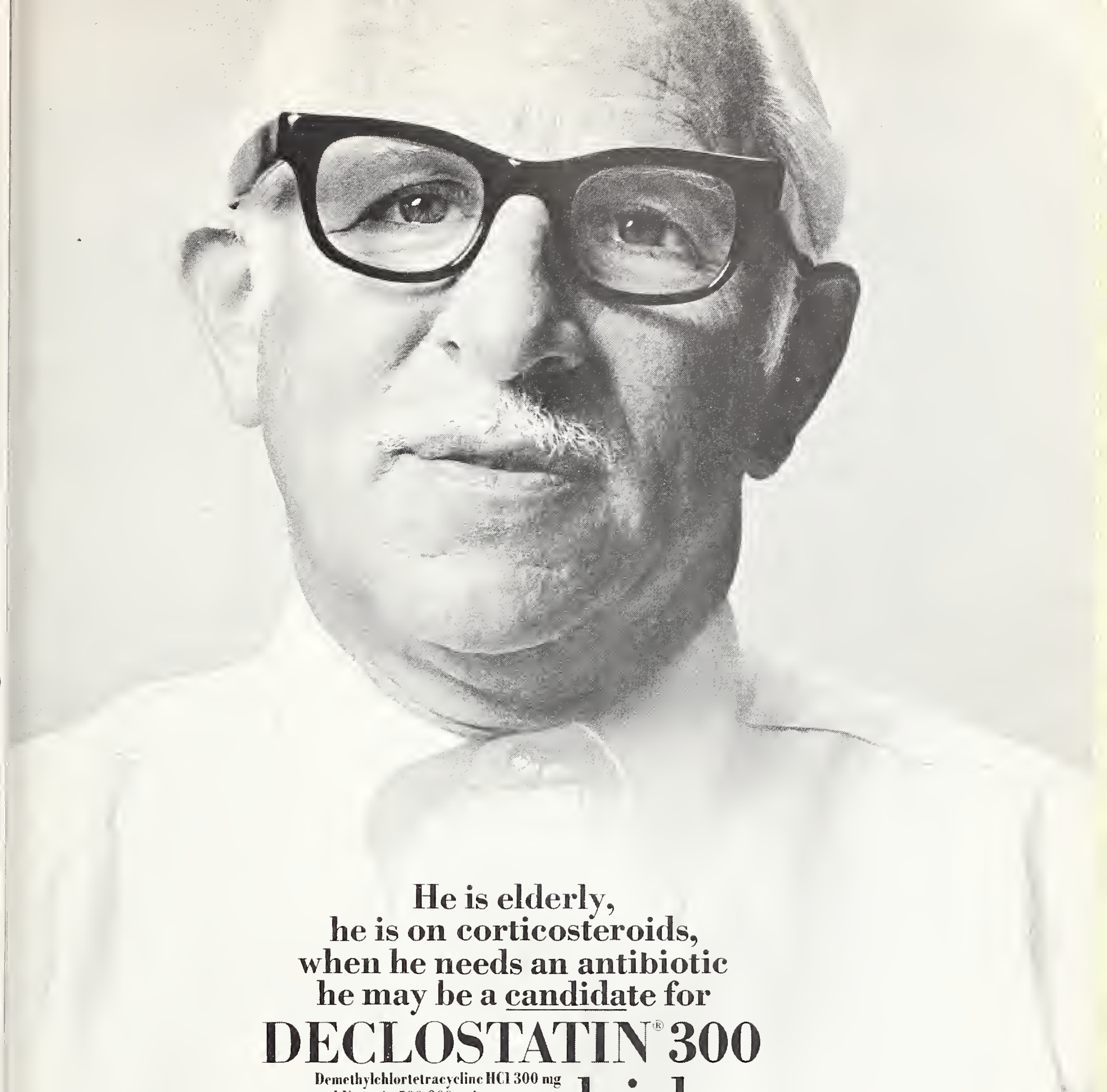

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be advisable. A photodynamic reaction to natural or artificial sun-
has been observed. Small amounts of drug and short exposure may
ce an exaggerated sunburn reaction which may range from ery-
a to severe skin manifestations. In a smaller proportion, photo-
gic reactions have been reported. Patients should avoid direct
ure to sunlight and discontinue drug at the first evidence of skin
mfort. Necessary subsequent courses of treatment with tetracy-
s should be carefully observed.

utions: Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken.

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All material other than scientific should be received prior to the first of the month preceding month of publication.

Please give notice of change of address at least one month in advance of the change, giving old and new addresses.

Dr. Fisher To Become MSMA President

Cancer Society Division Sponsors Session Program

The Missouri Division of the American Cancer Society will sponsor a program on the "Role of Transplantation in the Field of Oncology" at 9 a.m. on Saturday, April 4 during the 112th Annual Session of the Missouri State Medical Association at the Hotel Muehlebach, Kansas City.

The principal address will be by Joseph G. Fortner, M.D., Clinical Associate Professor of Surgery at Cornell University Medical College and chief of Transplantation Service, Department of Surgery, Memorial Hospital, New York.

Joseph G. Fortner, M.D.

After Dr. Fortner's address, there will be a panel discussion with Neill Berry, M.D., president of the Missouri Division of the American Cancer Society as moderator.

Panelists include Dr. Fortner; Christopher Y. Thomas, Jr., M.D., Chief of the Department of Surgery at St. Luke's Hospital, Kansas City; John O. MacFarlane, Ph.D., Head of the Life Sciences Section, Biological Division, Midwest Research Institute, Kansas City; and David A. Ringle, Ph.D., Principal Physiologist, Life Sciences Section, Biological Division, Midwest Research Institute, Kansas City.

Joseph L. Fisher, M.D.

Doyle C. McCraw, M.D.

Joseph L. Fisher, M.D., St. Joseph, will succeed Doyle C. McCraw, M.D., Bolivar, as president of the Missouri State Medical Association during the organization's 112th Annual Session scheduled April 2 to 5 at the Muehlebach Hotel, Kansas City.

The annual meeting will open with a session of the House of Delegates at 1:30 P.M. on Thursday, April 2, and conclude with a 7:30 AM breakfast session of the House on Sunday. The House of Delegates will also meet on Friday at 4 P.M. Reference committees will hold open sessions after Thursday's meeting of the House and again on Friday night as is necessary.

Many topics of scientific and economic interest to physicians are scheduled for all day Friday and again all day on Saturday during the annual meeting.

General luncheons are scheduled on both Friday and Saturday with a banquet on Saturday night at which time new members of the 50-Year Club and Past Presidents of the Association will be honored.

Ewing Kauffman, owner of the Kansas City Royals baseball team, will be the Friday luncheon speaker; while Missouri Lieutenant Governor William Morris will speak on Saturday. Both men are from Kansas City.

A number of specialty organizations as well as the MSMA Woman's Auxiliary will be holding meetings in conjunction with the Annual session.

Among program topics for Friday and Saturday will be Medical Malpractice, Emotional Problems of Adolescents, Comprehensive Care of the Indigent, The General Practitioner in Industrial Medicine, Changes in Medical Education, Mechanical Assistance for the Failing Heart, Many Faces of Depression and the Missouri Abortion Law.

More than fifty technical exhibits will feature helpful ideas and interesting new information for physicians in attendance.

Annual Session Banquet Speaker

Mr. Calvin D. Johnson

Mr. Calvin D. Johnson, shown above, will be the Saturday night, April 4 banquet speaker for the Missouri State Medical Association's 112th Annual Session in Kansas City. Mr. Johnson, considered by many to be one of the outstanding public speakers in the nation, is a Consultant on Public Affairs for the American Trucking Association and his appearance is courtesy of that organization and the Missouri Bus and Truck Association. A resident of Belleville, Ill., Mr. Johnson is a former member of the Illinois General Assembly as well as a former member of the United States Congress.

Officer's Conference Scenes

Shown in the photos above and at the left are some of the participants in the third annual County Society Officer's Conference held in Jefferson City on January 31 and February 1. In the top photo are left to right Walter T. Gunn, M.D., chairman of the sponsoring Public Service Committee; John I. Matthews, M.D., chairman of the Legislative Matters Committee; Representative William Phelps, Kansas City; and Senator A. M. Spradling, Jr., Cape Girardeau. In the second photo are A. W. Neilson, M.D., St. Louis, an MSMA delegate to the AMA who spoke about the American Medical Association; MSMA President Doyle C. McCraw, M.D., Bolivar, who discussed the State Association; an Charles W. Chastain, M.D., Farmington, Secretary of the Minera Area Medical Society, who discussed the role of the count society in organized medicine. I the third photo with Dr. Gun are seated, AMA Field Representative Tim Norbeck and AM Public Affairs Division Directo Joe Miller; and standing Ji Foristel of the AMA Washingto office. In the photo at the left i United States Senator Thoma F. Eagleton who was the banque speaker Saturday night.

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Preliminary Program
112th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

Muehlebach Hotel, Kansas City **April 2-5, 1970**

Thursday, April 2

11:00 AM Registration of Delegates.
1:30 PM House of Delegates Meeting, opening session.
4:30 PM Reference Committee Meetings.

Friday, April 3

8:00 AM Registration.

9:00 AM *Medical Malpractice.* (Sponsored by the MSMA Medical-Legal Committee.)
The Prevention of Malpractice, Mr. Max Wildman, Attorney, Chicago, Ill.
Moderator: Daniel L. Yancey, M.D., Springfield.
Panel Participants:
Hector W. Benoit, Jr., M.D., Kansas City.
Mr. James Jeans, Attorney, Kansas City.
Mr. Norris H. Allen, Attorney, St. Louis.

9:00 AM *Arthritis Review.* (Sponsored by the St. Louis Rheumatism Society.)
Moderator: William D. Gaunt, M.D., Columbia.
Panel Participants:
Medical Aspects of Surgery in Arthritis, David H. Neustadt, M.D., Louisville, Ky.
Pre- and Post-Operative Exercises for Arthritic Patients, Norman A. Rose, M.D., St. Louis.
Surgery in Rheumatoid Arthritis, D. Elliott O'Reilly, M.D., St. Louis.

10:30 AM Intermission to view exhibits.

11:00 AM *How Is Your Emergency Room?* (Sponsored by the MSMA Committee on Disaster Medical Care and National Defense.)
Moderator: Erin M. Dillard, M.D., Springfield.
Panel Participants:
The Anatomy for Disaster: A Report of the Bradford Aircraft Catastrophes, Francis C. Jackson, M.D., Pittsburgh, Pa.
Emergency Physician, Raymond R. Hannas, Jr., M.D., Kansas City.

11:00 AM *Endotoxic Shock,* Keith P. Russell, M.D., Los Angeles, Calif. (Sponsored by MSMA Committee on Maternal Welfare.)

11:00 AM *Emotional Problems of Adolescents* (Sponsored by the Missouri Academy of Psychiatry.)
Moderator: Edmund V. Cowdry, Jr., M.D., St. Louis, President, Missouri Academy of Psychiatry.
1. *Putting Youth Into Today's Context,* Fernando Tapia, M.D., Columbia.
2. *Guilt and Homework,* George J. Lytton, M.D., Kansas City.
3. *Dropouts, Delinquents, Drugs, Depression (The Drama of the Abandonment Syndrome in Adolescents),* James F. Masterson, Jr., M.D., New York.

12:00 NOON Committee on Maternal Welfare Luncheon
General Luncheon: Guest Speaker, Ewing M. Kauffman, President, Kansas City Royals Baseball Club.
University of Missouri Alumni Luncheon.

2:00 PM *Comprehensive Care of the Indigent.*
Moderator: Hector W. Benoit, Jr., M.D., Kansas City.
Panel Participants:
Max P. Pepper, M.D., St. Louis.
James M. Whittico, M.D., St. Louis.
Edwin O. Wicks, M.D., Kansas City.

2:00 PM *The General Practitioner in Industrial Medicine.* (Sponsored by MSMA Committee on Industrial Health.)
Moderator: Richard A. Sutter, M.D., St. Louis
Panel Participants:
I. *His Role: Part Time Medical Services to Industry,* Henry F. Howe, M.D., Chicago, Ill.

II. *Disability Evaluation: Disability Rating in Workmen's Compensation Cases,* Mr. James I. Kaut, Kansas City.

Discussants:

William L. Macon, Jr., M.D., St. Louis.

Paul J. Centner, M.D., Kansas City.

2:00 PM Program sponsored by Missouri State Surgical Society.

Moderator: Howard E. Linville, M.D., Kansas City.

Panel Participants:

1. *Patterns of Coronary Arterial Disease and the Surgical Significance,* Michael E. De Bakey, M.D., Houston, Texas.
2. *Radiological Diagnosis of Biliary Tract Disease,* Vallee L. Willman, M.D., St. Louis.

3:30 PM Intermission to view exhibits

4:00 PM House of Delegates, second session.

5:30 PM Missouri State Medical Foundation Annual Meeting.

6:00 PM Reference Committees.

Saturday, April 4

8:00 AM Registration.

9:00 AM *Changes in Medical Education.* (Sponsored by MSMA Committee on Medical Education and Hospitals.)

Moderator: Ralph R. Hall, M.D., Kansas City.

Innovation in Medical Communications in the Instruction of Medical Students and Physicians, Mr. M. Zane Thornton, Bethesda, Md.

Discussant:

E. Grey Dimond, Kansas City.

William H. Danforth, M.D., St. Louis.

9:00 AM *Mechanical Assistance for the Failing Heart.* (Sponsored by the Missouri Heart Association.)

Moderator: Albert M. Estes, M.D., Cape Girardeau.

Panel Participants:

Intraaortic Phase-Shift Balloon Pumping in Cardiogenic Shock, Adrian Kantrowitz, M.D., Brooklyn, N. Y.

The Nature of Heart Failure, Edmund H. Sonnenblick, M.D., Boston, Mass.

9:00 AM *The Role of Transplantation in Oncology,* Joseph G. Fortner, M.D., New York, N. Y. (Sponsored by Missouri Division, American Cancer Society.)

Moderator: Neill Berry, M.D., Kansas City.

Panel Discussants:

Christopher Y. Thomas, Jr., M.D., Kansas City.

John O. MacFarlane, Ph.D., Kansas City.

David A. Ringle, Ph.D., Kansas City.

10:30 AM Intermission to view exhibits.

11:00 AM *Many Faces of Depression.*

Moderator: Edward T. Auer, M.D., St. Louis.

Panel Participants:

Pediatrics, George D. Comerci, M.D., Tucson, Ariz.

Medicine, Samuel B. Guze, M.D., St. Louis.

Surgery, Robert S. Smith, M.D., St. Louis.

Obstetrics and Gynecology, Samuel D. Soule, M.D., St. Louis.

11:00 AM *Resuscitation and Transportation of the Injured.* (Sponsored by the Missouri Chapter of the American College of Surgeons.)

Moderator: John A. Collins, M.D., St. Louis.

Panel Participants:

F. D. Farrington, M.D., Minocqua, Wisc.

Marshall B. Conrad, M.D., St. Louis.

Frank L. Mitchell, M.D., Columbia.

11:00 AM *Symposium on Chronic Renal Disease.*

Moderator: Robert G. Muth, M.D., Kansas City.

Experience with Chronic Home Hemodialysis in the Indigent, Francisco Gonzales, M.D., New Orleans, La.

Hemodialysis in a Private Hospital, Christopher Y. Thomas, M.D., Kansas City. (One other participant to be announced.)

12:30 PM Fifty-Year Club Luncheon.

General Luncheon: Guest Speaker, Honorable William S. Morris, Lieutenant Governor, State of Missouri.

(Continued on page 140D)

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2:30 PM *Liberalization of Missouri Abortion Law.* (Sponsored by the Missouri Obstetrical and Gynecological Society and the MSMA Committee on Medicine and Religion.)
Moderator: George J. L. Wulff, Jr., M.D., St. Louis.
  Panel Participants:
    Keith P. Russell, M.D., Los Angeles, Calif.
    David G. Hall, M.D., Columbia.
    Denis Cavanagh, M.D., St. Louis.
    Rabbi William B. Silverman, Congregation B'nai Jehudah, Kansas City.
    Father Patrick Tobin, Annunciation Catholic Church, Kansas City.

2:30 PM *Panel on Iatrogenic Diseases.*
Moderator: Richard W. Yore, M.D., St. Louis.
  Concepts in the Prevention of Iatrogenic Disease, David M. Spain, M.D., Brooklyn, N. Y.
  Discussants:
    Fred V. Lucas, M.D., Columbia.
    David Ginder, M.D., Columbia.

4:00 PM Intermission to view exhibits.

6:30 PM Social Hour for those attending the Banquet.

7:15 PM Annual Banquet in Honor of Past Presidents of MSMA.
  Guest Speaker, The Hon. Calvin Dean Johnson, Consultant on Public Affairs, American Trucking Associations, Inc., Washington, D. C.

Sunday, April 5

7:30 AM House of Delegates Meeting, breakfast and final session.

President McCraw to Award 50-Year Pins At Banquet on April 4

Fourteen members of the Missouri State Medical Association will be honored during the 112th Annual Session in Kansas City on April 2-5 for completing 50 years in the practice of medicine.

In a special ceremony at the Annual Past-Presidents' Banquet on Saturday, MSMA President Doyle C. McCraw will award 50-year pins to Drs. William M. Ketcham, Lee G. Potter and George H. Thiele, Kansas City; Carl E. Rice, Hillsboro; John F. Rutledge, Festus; Walter E. Abell, Alfred Goldman, Samuel B. Grant, Oscar C. Heyer, Herman M. Meyer, Henry Rosenfeld, Elmer Sexton, William H. Walters and Richard G. Graeser, St. Louis.

The annual 50-Year Club Luncheon will be held at 12:30 PM on Saturday in Room # 4 in the Muehlebach Hotel. Normally scheduled for Friday, the luncheon was moved to Saturday this year to enable 50-Year Club members to attend both events on the same day.

Dr. William H. Omsted of St. Louis is President and Dr. Charles E. Gilliland of Cameron is President-Elect of the 50-Year Club which consists of approximately 200 members.

Any member who wishes to attend the luncheon but has not made reservations is invited to contact Charles E. Gilliland, M.D., Cameron, Missouri 64429.

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Two drawings will be held—one on April 3 and one on April 4—for a Portable Television Set to be awarded to each winner! Drawings limited to M.D.s registered at the 112th Annual Session.

● Visit the Exhibits at the MSMA 112th Annual Session ●

Preliminary Program
23rd Annual Session

MISSOURI SOCIETY OF MEDICAL TECHNOLOGISTS

Muehlebach Hotel, Kansas City **April 2-5, 1970**

Thursday, April 2

Presiding: Lenore Vestal, M.T. (ASCP)

8:00 AM Registration.
9:00 AM Invocation.
9:10 AM *Welcome Address,* Donna Gault, President-Elect.
9:15 AM *New Concepts in Basic Immunology With Application to Diseases of Complex Immune Mechanism,* Pierre Keitges, M.D.
10:00 AM *Positive Anti-Globulin Test Due to Drugs,* Charles Kelly, M.D.
10:20 AM Coffee Break.
10:45 AM *Tissue Typing,* Donald Cross, M.D.
11:30 AM Questions on *Tissue Typing.*
Announcements.
12:00 NOON Board of Directors Meeting.
Lunch.

Presiding: Francis Singleton, M.T. (ASCP)

1:00 PM *Chemical Studies of Cell Structure and Function in Disease,* Dante G. Scarpelli, M.D.
Special Stains in Neuropathology and Their Role in Establishing a Diagnosis, John Kepes, M.D.

Friday, April 3

Presiding: Jerry Scanlon, M.T. (ASCP)

8:00 AM Registration.
9:00 AM *Laboratory Aids in Diagnosis of Cystic Fibrosis,* Joe Kanerak, M.D.
9:30 AM *Lipids,* Harold Woods, M.D.
10:20 AM Coffee Break.

Special Events

Friday, April 3

12:00 NOON Student Luncheon, Hotel Phillips to be followed by Food and Drug Lab Tour.

Saturday, April 4

6:00 to 7:00 PM Social Hour.
7:00 PM Annual Banquet, Prom Sheraton.

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The Missouri State Medical Association since 1943 has made available to its members a Special Disability Income Benefits Policy issued by our "Loyalty Group" Companies now a part of the America Fore-Loyalty Group Insurance Companies—the largest casualty-fire underwriting group in the world. The low cost at which the policy is offered is made possible through the purchasing power of the membership of your association as a whole.

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112th MSMA Annual Session

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”	Richard J. Lanning, Kansas City	
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"	Paul F. Max, St. Louis	Emmet B. Drescher, St. Louis

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"	F. Eugene Pennington, St. Louis	Richard H. Fallon, St. Louis
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"	William L. Smiley, St. Louis	Virgil O. Fish, St. Louis
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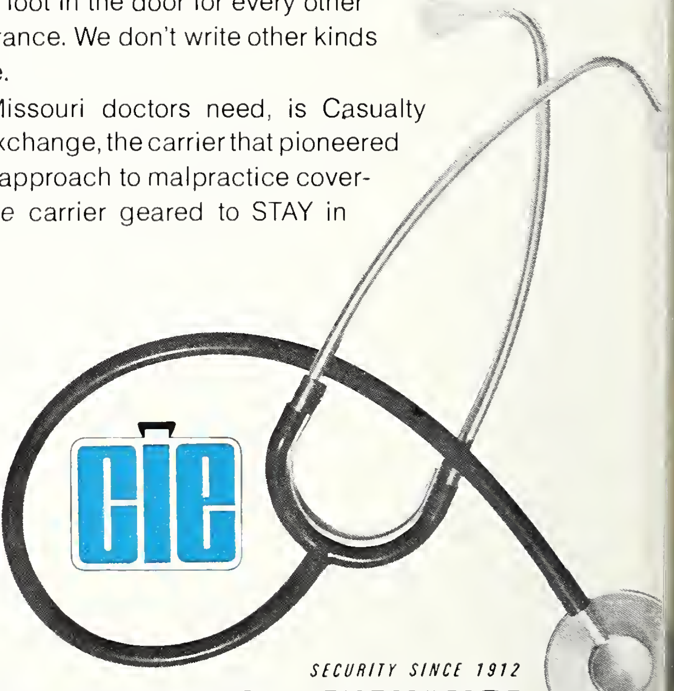

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Vernon	James J. Pascoe, Nevada	John Torontow, Nevada

COMMERCIAL EXHIBITORS LIST

For the 112th Annual Session

Booth	*Exhibitors*
1	Abbott Laboratories North Chicago, Illinois
25	Altman-Singleton & Company Kansas City, Missouri
52	Apache Corporation Minneapolis, Minnesota
57	Arnar-Stone Laboratories, Inc. Mount Prospect, Illinois
55	Astra Pharmaceutical Products, Inc. Worcester, Massachusetts
4	Ayerst Laboratories New York, New York
7	Blue Cross and Blue Shield Kansas City, Missouri
28	Bristol Laboratories Syracuse, New York
37	Ciba Pharmaceutical Company Summit, New Jersey
9	Coca-Cola USA Atlanta, Georgia
54	Cole Pharmacal Company, Inc. St. Louis, Missouri
23	Data Service Agency, Inc. St. Louis, Missouri
11	D. M. Doyle Pharmaceutical Company Minneapolis, Minnesota
15	Eaton Laboratories Norwich, New York
5	The Emko Company St. Louis, Missouri
41	Encyclopaedia Britannica, Inc. Chicago, Illinois
48	Endo Laboratories Inc. Garden City, New York
47	Hoechst Pharmaceutical Company Cincinnati, Ohio
30	Knoll Pharmaceutical Company Orange, New Jersey
50	Eli Lilly and Company Indianapolis, Indiana
31	Mead Johnson Laboratories Evansville, Indiana
2	The Medical Protective Company Fort Wayne, Indiana
32	Merck Sharp & Dohme West Point, Pennsylvania
42	Miller Pharmacal Company St. Louis, Missouri

Booth	*Exhibitors*
59 & 60	Missouri Regional Medical Program— Missouri Heart Association Springfield, Missouri
6	North American Pharmacal Dearborn, Michigan
8	Ortho Pharmaceutical Corporation Raritan, New Jersey
43	Parke, Davis & Company Detroit, Michigan
56	Philips Roxane Laboratories, Inc. Columbus, Ohio
26	Postal Investment Company, Inc. Jefferson City, Missouri
58	Wm. P. Poythress & Co., Inc. Richmond, Virginia
12	Reid-Provident Laboratories, Inc. Atlanta, Georgia
19	Ross Laboratories Columbus, Ohio
44	Rowell Laboratories, Inc. Baudette, Minnesota
24	Sandoz Pharmaceuticals Hanover, New Jersey
46	W. B. Saunders Company Philadelphia, Pennsylvania
51	G. D. Searle & Co. Chicago, Illinois
27	Seven-Up Bottling Company St. Louis, Missouri
36	Siemens Corporation Rosemont, Illinois
29	Smith Kline & French Laboratories Philadelphia, Pennsylvania
53	Southern Medical Association Birmingham, Alabama
45	E. R. Squibb & Sons, Inc. New York, New York
10	Stroke Diagnosis—Bi-State Regional Medical Program St. Louis, Missouri
14	Stuart Division/Atlas Chemical Industries, Inc. Pasadena, California
3	United Medical Equipment Co. Kansas City, Missouri
20	The Upjohn Company Kalamazoo, Michigan
40	Warner-Chilcott Laboratories Morris Plains, New Jersey
33	Warren-Teed Pharmaceuticals, Inc. Columbus, Ohio

Continuing Education Coming Events

March 10-12	**Seminar—Oncology; A Curriculum in Cancer** Menorah Medical Center, Kansas City 64110
March 11-12	**Drug Therapy: Psychoactive Anticonvulsant Drugs in Medical Practice** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
March 16-18	**Symposium—Pediatrics** University of Kansas Medical Center Battenfield Auditorium Kansas City, Kan.
March 18-19	**Care of the High Risk Infant** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
March 23-25	**Symposium—Surgery** University of Kansas School of Medicine Kansas City, Kan.
March 25-26	**Blood Component Therapy** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
April 6-8	**Computerized Radiologic Diagnosis** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
April 6-8	**Symposium—Ophthalmology** University of Kansas School of Medicine Kansas City, Kan. 66103
April 10-11	**Midwest Cancer Conference** *"Cancer and Its Clinical Management"* Broadview Hotel, Wichita, Kan. (AAGP Credit)
April 13-15	**Symposium—Anesthesiology** University of Kansas School of Medicine Kansas City, Kan. 66103
April 17	**Symposium—Infectious Diseases** University of Kansas School of Medicine Kansas City, Kan. 66103
April 20-22	**Lesions Related to the Spinal Cord** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201

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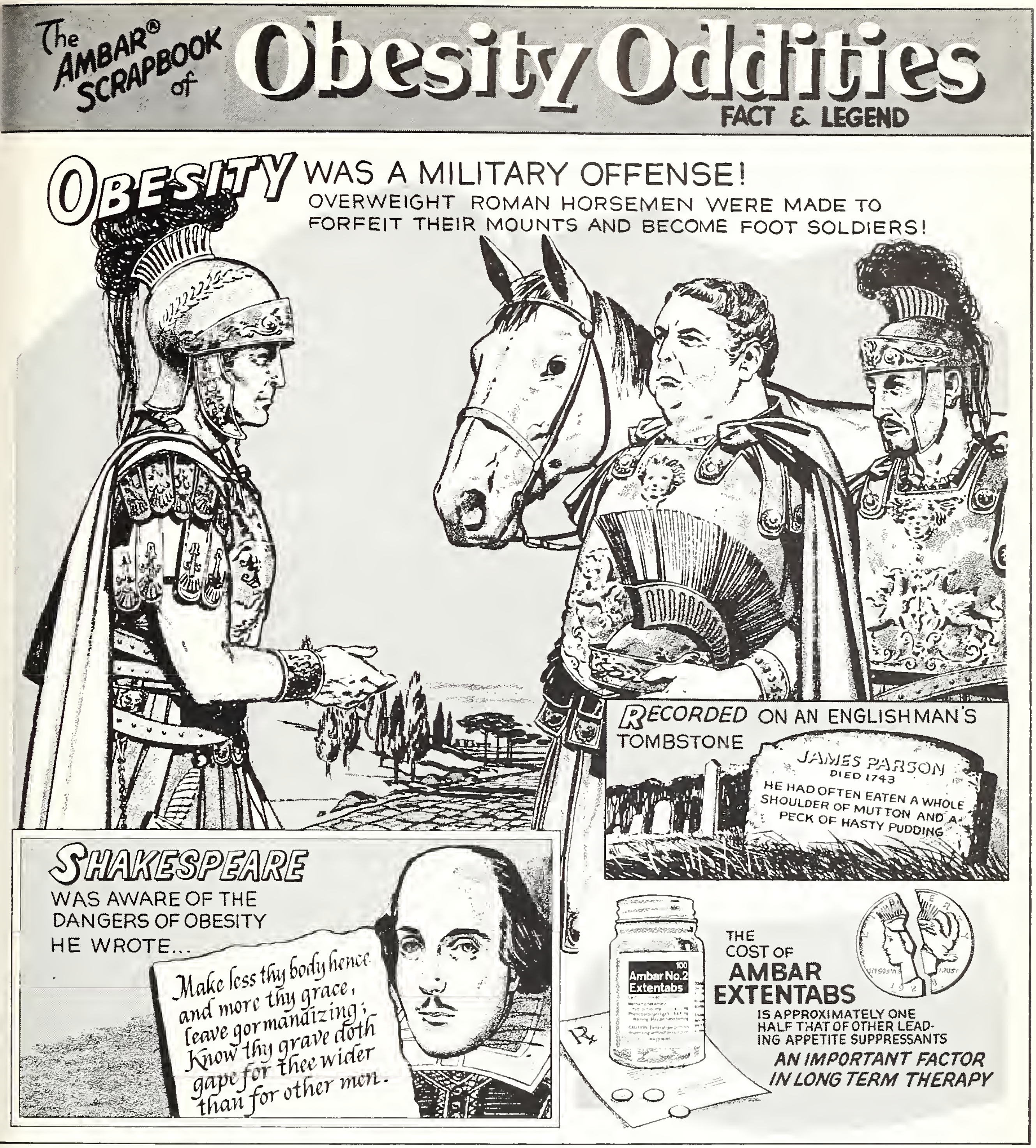
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Peer Review

RICHARD S. WILBUR, M.D.

Assistant Executive Vice-President
American Medical Association

Peer Review! A popular term these days. First, though, what does it mean? Literally, it means a review by one's equals. Therefore, it means to us a survey of a doctor's work by other doctors.

Then, why do we need this peer review so desperately? The answer to this question itself becomes a multiple series of problems. They begin, of course, with government—specifically with Titles XVIII and XIX which were passed in Public Law 89-97. While the Medicare Law only calls for inhospital utilization review, experiences in the last three years have shown that far more is needed. There has been the well publicized increase in health care costs so that at the September meeting of the Medicare Health Insurance Benefits Advisory Council, the following statement was presented:

> "In order to provide an acceptable level of quality for the services rendered under Part B of Medicare, consideration should be given to establishing standards to govern the rendering of services by physicians, analogous to, but necessarily quite different in application from, the standards now established for most other providers of health care under Medicare. The need for broad standards for physicians' services is predicated upon the right and responsibility of the government to have assurance of the acceptable quality of all services for which it provides reimbursement. Precedents which have been set in government and non-government programs, and published studies, which point out the wide variability in quality of medical care, indicate the need.
>
> "Thus, the standards of eligibility for physicians would be a 'preventive' measure to keep some physicians from ever rendering certain medical services under the Medicare program. This differs from the 'post facto' stopping of abusers of the Medicare program. The latter may involve a *few* physicians, those who are grossly abusing the program. The former could potentially involve the future participation of *many* of the practicing U. S. physicians in the rendering of certain medical services under the Medicare program."

The first answer to the "why" of peer review, then, is a very practical one. Government must be assured that it is getting its money's worth for all the billions it has spent with these large programs. No man can be elected to public office on a platform in which he agrees to allow the expenditure of unlimited and unchecked sums of money for any purpose—even for the health care of the American people. All of us here tonight are taxpayers and all of us would like to think that the money which we give up to our government is truly buying something worthwhile. The non-physicians of the country have been convinced by what they read in the newspapers that they are no longer getting their money's worth for taxes spent on Medicare and Medicaid. They want, rightfully, some proof.

There are still other reasons we need to have peer review. One is malpractice. This is an ever-growing problem in some areas such as Southern California where premiums of $5,000 to $16,000 a year are now being paid by doctors who have never been sued. The problem is acute. Over and over, the point is made that the public is not assured that medical care is of high quality. Therefore, the allegations and accusations of the plaintiff's attorney fall upon open ears and juries are quite willing to believe the worst about all physicians. If they knew that an adequate mechanism of peer review existed which assured them of the quality of health care, this problem could be alleviated as it has been in areas such as Tucson, Ariz.

The third reason why we need peer review comes from the press. The press has been quite willing to assign the responsibility for all of the rise in health care costs to the physician because it includes the vast portion which is paid to institutions, particularly the hospitals and extended care facilities. If we physicians are to take the blame for the expense, the least we can do is to take the responsibility for supervising this expenditure. In other words, we will have to supervise the utilization and, beyond that, even the efficiency and the quality of care given in the hospitals and the extended care facilities as well as that given by physicians. In some areas, this review has been extended also to the ordering by physicians of such services such as physical therapy and even to the prescribing of medications—95% of health care expenditure.

The fourth reason, however, is the most important and that is the problem of satisfying the American people—the patients of the doctors of America—that they are receiving the highest possible quality of care. Let me say that I am not concerned about your particular patients. The mere fact that you are the kind of a physician who has enough interest to come here tonight to listen to a talk on this subject is proof enough that you are not the kind of a doctor whose patients need this assurance. Unfortunately, there are many other doctors who have not come here tonight and who don't go to any other medical meetings, conventions or continuing medical education. These are the men whose patients are uneasy—sometimes with good reason. The question, therefore, becomes not if we need medical care review, but who will do it?

REVIEW OF QUALITY UNDER MEDICARE

The Cost Effectiveness Act of 1969, which has been sent from HEW to the House of Representatives, contains a number of provisions for federal review of quality under Medicare. Some of these include, as did also Walter McNerney's Medicaid Taskforce Report, suggestions for federal licensure and federal standards. So it now becomes very clearly a matter which will be handled by government, if no one else steps forward first. However, we have seen in the past, situations in which the government was quite willing to accept voluntary standards. The Joint Commission on Accreditation and our specialty boards are two cases in point.

You might then ask whether there is any precedent for doctors in their organizations to engage in review of the quality of health care. There certainly is! The AMA virtually since its inception has been opposed to low standards as exemplified by quacks and chiropractors. Even before the Flexner Report, and certainly very much since then, we have been concerned with the quality of training in medical schools and with the accreditation of internship and residency programs. We have worked to improve the quality of drugs since 1900.

This excellent presentation on *Peer Review* was made by Dr. Wilbur before the Council of the New England States Medical Societies at its 1969 Annual Session. It was offered for publication in MISSOURI MEDICINE by the *Rhode Island Medical Journal.*

Within the local medical societies there have been rather elementary forms of peer review for many years. Most societies have some form of insurance review committee. This committee's activities vary from place to place, but, in general, it adjudicates fees and makes some effort to explain why the fine print in an insurance contract means that the company does not have to pay the patient for the physician's work. Most local societies also have grievance committees. These, of course, take care of complaints, be they from patients, third parties or other physicians. Both of these types of committees are largely of the brush-fire type, i.e., they do not go into action until long after a problem has occurred and not until after someone else brings it to the attention of the medical society.

Another form of peer review with which we are all familiar is that in the hospital with its credentials committee, medical records, committee, tissue committee and utilization review committees. The current AMA position on peer review can be summarized with the following quote from Report F of the Council on Medical Service to the Annual Meeting in New York this year:

> "For more than a decade, the Council on Medical Service and its Committee on Health Care Financing (formerly the Committee on Insurance and Prepayment Plans) have recognized a need for the establishment of professional review activities by medical society review committees and utilization review committees of hospital medical staffs. Initially, this interest was generated by concern over the continuing increase in the costs of health care, particularly for hospital services, and the resulting steadily rising rates required from the public for health benefits protections. In accepting a responsibility for professional review activities, the medical profession has demonstrated its awareness of the need to conserve the patient's health care dollar, educate and inform the profession in the economics of health care, assure the appro-

priate use of health care personnel and facilities, and maintain high standards of medical practice."

Future Outlook

What is the future purpose of peer review then? Sometimes it is easier to start out by saying what it is not. It is not being a cop and it is not simply performing as a government agent to save tax money. The main purpose is to assure the public of the quality and effectiveness of the health care being given in that area. There are also side purposes of considerable importance, however, such as education. There is much which the person being reviewed can learn. As an example, the American Association of Medical Clinics in the last few years has set up an arrangement in which several doctors leave their practices in their different clinics and gather to spend two days inspecting a specific clinic. They do not do this as policemen who have been called in by the AAMC or by government to check on some questionable practices. They only do it when the clinic being surveyed requests such a visitation. In fact, the clinic which is surveyed pays all the expenses.

Since they do not need this investigation in order to be a member clinic, don't get any fancy certificate and don't get any increase in the fees they can charge, you may wonder why they bother. The answer is that any group which wishes to improve, and I have never seen one yet that was close to perfection, can only benefit from a critical review by informed fellow physicians. So far, each group reviewed has thought that it was more than worth the effort and expense.

You might also ask why a doctor would leave his practice for a couple of days to go prowl through another clinic. The answer here involves more than altruism. It is impossible for an intelligent man to spend two days watching other doctors practice medicine without learning something which will be to his benefit. Remember you never had a medical school course in how to run an office. Whether you are in group or solo practice, it is doubtful that you are so efficient that you could not learn even better ways, either by having another doctor visit you or by your spending time observing his practice.

So the purpose, then, is not just to save taxpayers money, not just to assure the public of quality and effectiveness but, also, a form of continuing medical education for both the reviewer and the reviewed.

The next problem we face then is what is it we should review? It seems obvious from the past discussion, we must review all there is of medical care, at least, and very possibly in the future, all there is in health care. Certainly we must review the medical treatment given in hospitals and extended care facilities. More recently it has become increasingly obvious that, like it or not, we must also review the medical care given in the office. It may be difficult, but it is certainly essential.

Next, you might ask, what are we looking for? First, of course, is fraud, which in medicine is no different from any other kind of fraud and the duty of the peer review team is no different from than of any other honest citizen. Fortunately, this is rare and soon taken out of the hands of the physicians. The next item for which we look, of course, is the too-high fee, something we have done traditionally for many years. Beyond that, we must now begin to look at utilization—that is the number of services rendered and even beyond that to the efficiency and quality of care rendered. It is no longer enough to tell people that they have not been cheated or just that the fee for a given service is not too high. They need assurance that they are receiving a good quality of care for the money they spend.

Techniques for Meaningful Review

The last question is probably the hardest. Once we have decided that review is necessary, what techniques can we use to make this review truly meaningful? How do we do it? The traditional technique for peer review has been the use of a Grievance Committee or Insurance Review Committee which simply looks at those physicians about whom there has been a complaint—usually already known to all the doctors in the area. But, what we're speaking of now goes well beyond this system. In a number of parts of the country it has been possible, particularly under the government programs, but not only under them, to do a form of total claims review by computer. This will give a gross review of a man's practice. From this can be developed a number of statistics: the number of visits per day; the number of visits per patient; the number of visits per diagnosis; the number of shots given per visit; the number of lab x-ray tests per visit; and from this, one may obtain an overall view of a physician's practice.

Dr. Donald Harrington of the San Joaquin County Foundation has done a great deal of work on this, initially only on private insurance company contracts, later on Medicaid as well, and has been able to set up parameters of electronic observation which have enabled him to spot "deviant practitioners." Those doctors who have an unusual number of injections per patient visit in the office or others who never seem to be able to see a patient without doing a urinalysis or blood count, those who must see a patient two or three times a week for a rather routine diagnosis such as osteoarthritis, etc. Doctor Harrington would be the first to tell you that you cannot leap to conclusions simply from a computer analysis.

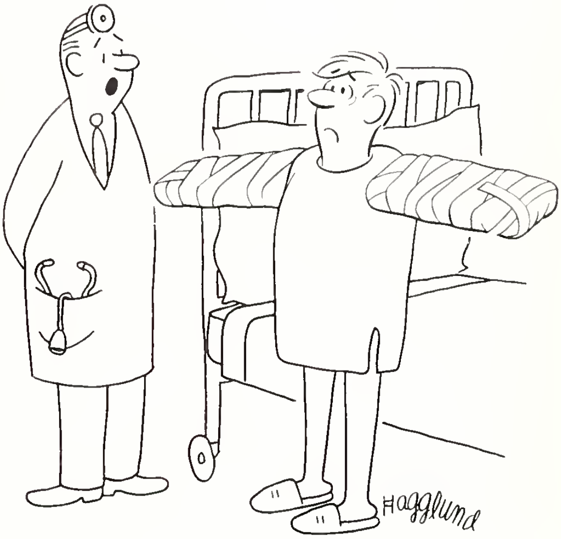
There are all sorts of reasons for variations from the norm in practice. The mere fact that a man practices in a different way is no proof at all that he is a "bad" practitioner. In this country, and particularly in medicine, uniformity and conformity are not necessarily the ideal.

There are other reasons for the inherent errors in the computer method including local variations, particularly the differences in style of practice between rural and urban doctors and of the disadvantaged areas versus the middle class suburbs.

The next step must always be to pull out the original claims forms for review. Here one can look over the number of tests ordered and paid for on the basis of the diagnosis and, also, the amount of treatment and its relevance to the diagnosis placed upon the claims form. Once the peer review committee has gone through the computer analyses, selected from it those claims forms it needs for review and then reviewed these forms from unusual practitioners, it still has not established the fact that the doctor involved practiced a poor quality of care.

Let me give you an example. In my former county, Santa Clara, we have a moderate size city, San Jose, with some 400,000 citizens. The city is split by Highway 101. On the West side of the highway are the English speaking citizens, generally from the lower middle class on up. On the East side of the highway are the Spanish speaking citizens, usually of lower income groups. In reviewing claims under our Medicaid program, which review is done by the County Medical Society, we found the Spanish speaking doctors East of the highway invariably gave penicillin injections to children with a cold. We Anglos, of course, were certain we had spotted an obvious abuse of the program. A group of men who were committing malpractice simply in order to collect extra funds for giving shots under the program. A committee of righteous, outraged county society members descended upon our Spanish speaking confreres in order to bring the wayward brothers back into the fold. Well, the message was delivered alright, but it was we who got the message.

It appears that in this type of community, among the lower income Mexican-Americans, faith in physicians is erratic and on a semi-mystical basis. The doctor is given one chance at the illness. When the baby has a cold, he and the rest of the family are bundled up and brought into the doctor. Whatever the doctor does is fine with the mother, but no matter how much sicker the child gets afterward, he will not be brought back since there is not any reason to. "He's already seen the doctor." Further, remedies are likely to include prayer or forms of folk medicine. Furthermore, the mothers have very little faith in pieces of paper or long explanations. Telling the mother that she should take a prescription and fill it at a drug store and then to give pills to the child if he should get sicker, simply results in another piece of scrap paper in the waste basket by the front door of the doctor's office. Even giving samples of pills to be taken later is no assurance that the child will receive any further treatment. Therefore, if there is any possibility that the baby may develop bacterial bronchitis or pneumonia from the cold, the only assurance that he will



"Sorry, we can't discharge you from the hospital today, Mr. Wilkins. It's far too windy outside."

survive is for the physician to actually place the penicillin into the child himself.

While we may all hope that in the future education and an elevation of income level will change this situation, for the present it continues to be malpractice or at the very least poor medical practice to give penicillin for colds in the English western half of the city, while it is malpractice not to do so East of the highway.

There are many other examples all of which add up to mean that the review of quality can only be done locally, it can only be done by people who can understand the variations and circumstances, which in the end means that it can only be done by other local physicians. It must be done by physicians, because lawyers for instance are so bound by technicalities that common sense or what is best for the people rarely enters their minds and to allow them control of the program would be disastrous.

For example, in one of our large cities in California, it became evident after a period of review that of eight minority doctors in one area, six were abusing the programs through over-utilization. Too many injections per patient visit, too many laboratory tests, etc. This assumption was reinforced by visits to their offices and, therefore, the county medical society recommended that they no longer be paid under the Medicaid program. The first two telephone calls to the medical society were from the other two minority physicians—the "good" doctors in the area. They were terribly unhappy. "Are you trying to kill us? There are too many Medicaid patients already for the eight of us. Two of us even working 24 hours a day couldn't possibly handle the load, and we certainly couldn't give any quality of medical care. You must keep the other six doctors working for the good of the people of our part of the city."

The Medical Society was understandably reluctant, but it also was understanding of the problem on the basis that even over-utilized medical care is better than none at all. Those doctors were reinstated in the program, although the County Medical Society has since attempted a practice educational process for them. Again, what this adds up to is that there must be local control of the program, there must be local understanding of local problems and there must be an interest on the part of physicians of the Medical Society in seeing that medical care is given to the people.

Let me make a summary about the benefits to be derived from this program. I have mentioned the direct benefits, of course, to the taxpayer, to the reviewing physician and to the physician who is reviewed, but there are other benefits, one of these comes from publicity. It is no secret that the medical profession has a "bad image." The knowledge that the doctors in the County Medical Society are spending hours reviewing the quality of care can only do good things for us. In the past, as you know, we have only allowed publication of bad publicity about doctors, so it is not surprising that we have a poor image. In the past, if the doctor did something good for a patient, we have forbidden this news to be printed because we felt it amounted to advertising. However, if something bad happened—a drunk driving conviction or malpractice suit—nothing the Medical Society could do would ever keep the news out of the paper. For this reason, our patients have read only unfavorable things about doctors and naturally formed that kind of an opinion. I might suggest as an aside to the principal subject that we may have to reconsider our entire concept of physician publicity. However, whether we need to change our attitude toward publicity or not, there can be no doubt about or need for peer review.

The People of this country deserve to know their medical care is all it should be. The best guarantee of this can be given only by the concerned physicians of an area working together in an effective program of Peer Review:

1. Congress demands it;
2. Our patients deserve it; and
3. *We* need it.

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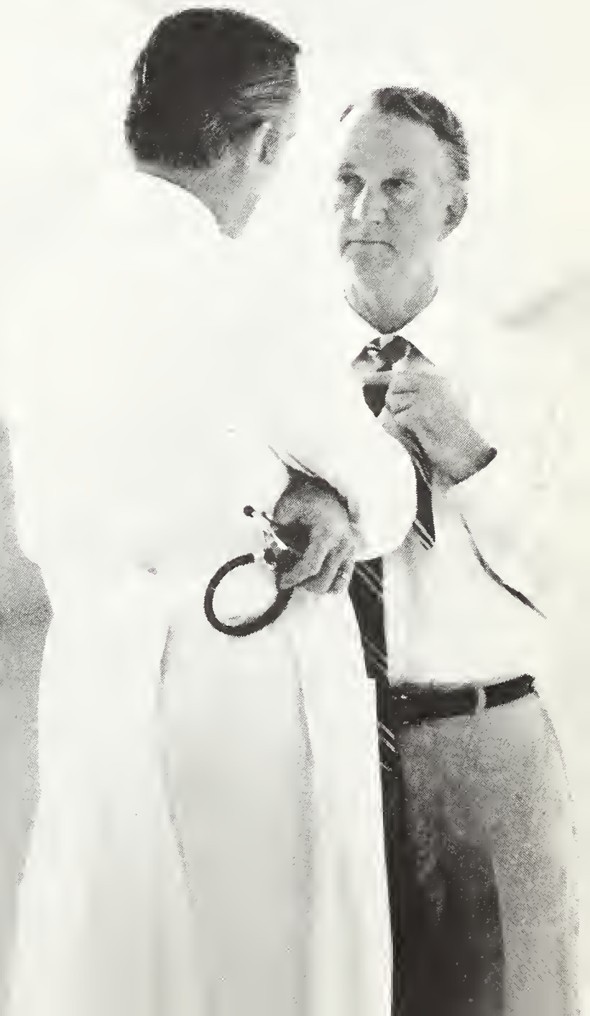

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Notes of interest from Here . . . . and There

Dr. Buesseler

Dr. John A. Buesseler, professor of ophthalmology at the University of Missouri School of Medicine, has been appointed vice-president for health affairs and chief executive officer of the Texas Tech University Medical Center and dean of the Medical School. Dr. Buesseler has held the professorship at the M.U. School of Medicine-Columbia since 1961 and was founding chief of the Ophthlamology Service from 1959 to 1966. He also is continuing education instructor in ophthalmology, American Academy of Ophthalmology and Otolaryngology and is associate examiner, American Board of Ophthalmology. Dr. Buesseler will move to Lubbock early in the summer to assume duties which will include supervision of the Medical School from its construction phase through the assembling of staff and faculty.

Dr. Robert S. Mosser, president of the Independence Sanitarium and Hospital staff and president-elect of the Greater Kansas City Society of Internal Medicine, has been named planning director for the Kansas City subregion of the Missouri Regional Medical Program. In this position, Dr. Mosser replaces **Dr. R. N. Noback,** who will continue as acting dean of the University of Missouri-Kansas City School of Medicine.

The Jefferson County Health Department Board of Directors has named **Dr. Frank C. Kozal,** Crystal City, to fill the position recently left vacant by **Dr. Carl E. Rice** who resigned after 16 years of service as director of the County Health Department. Dr. Kozal will be the third and the youngest Health Department director to serve. In announcing his retirement, Dr. Rice said, "The position requires application and energy, and I feel a younger man is needed." Dr. Rice assumed the director's post after retiring from the Public Health Service, with which he was associated for 32 years.

The **American College of Physicians** has announced that its John Phillips Memorial Award for distinguished contributions in internal medicine will be presented to **Dr. Carl V. Moore,** St. Louis, Busch Professor of Medicine and chairman of the Department of Medicine and physician-in-chief at Barnes Hospital. The award will be presented during the College's Annual Convocation, the climax of its 51st Annual Session in Philadelphia, Pa. on April 12-17.

Blaine Z. Hibbard, Kansas City, recently was named medical advisor for Southwestern Bell's new area headquarters in Kansas City.—**Dr. Charles J. Kromer,** St. Louis, has been appointed chief of staff of the Incarnate Word Hospital. Other new officers at the hospital are **Dr. C. M. Witt,** vice-president, and **Dr. Stanley C. Becker,** secretary-treasurer.

The medical staff at Research Hospital and Medical Center in Kansas City has elected **Dr. William A. Leo** president for 1970. Other newly-elected officers are Drs. **William Y. Eubank**, vice-president; **Raymond O. Keltner**, secretary and **Alfred D. Biggs**, treasurer.

The **Raytown Chamber of Commerce** recently honored a longtime physician in its community. The recognition of **Dr. Dillard M. Eubank** had been planned without his knowledge. **Mr. Joe Herndon**, superintendent of schools, presented to Dr. Eubank a plaque with which the Chamber honored him for "distinguished service to the Raytown community." Dr. Eubank served as president of the Chamber of Commerce in 1961.

Tribute was paid to **Dr. L. H. Fuson**, who recently retired after 50 years of medical practice in St. Joseph, by a group of more than 60 friends at the Hotel Robideau. A silver wine cooler was presented to Dr. Fuson in appreciation for his 50 years of service to the medical profession. The presentation was made by **Dr. J. H. Ryan. Dr. Allen I. Herman** was master of ceremonies for the event.

Dr. Charles F. Grabske, who has practiced medicine in Independence for 41 years, was honored at a recognition dinner by the Independence Sanitarium and Hospital medical-dental staff recently. Dr. Grabske retired officially on Dec. 31, 1969. In addition to members of the staff and their wives and members of Dr. Grabske's family, six of his medical school classmates attended the dinner.

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The Senate Finance Committee approved a staff report on Medicare and Medicaid which was critical of both physicians and administration of the health care programs. It included a recommendation for fee schedules for physicians' services.

In a joint statement, the presidents of the American Medical Association and the National Medical Association pledged support of their organizations to the committee's efforts to correct deficiencies and abuses in the two programs. However, the two spokesmen for organized medicine said "it would be tragic if . . . regulations were adopted whose effect would be to deny a greatly improved level of health care to the ghettos."

The AMA-NMA statement said that "we were greatly encouraged by the committee's comment that it 'believes that the majority of physicians for whom information was requested with respect to Medicare and Medicaid as presently structured have dealt fairly with these federal programs and with the federal government.' "

In regard to abuses and fraud, the statement said:

"Where these abuses exist, they must be rooted out. Both the AMA and the NMA are prepared to take very vigorous action within their power to help the committee and the government accomplish this."

It was noted that the committee had denied an AMA request many months ago that it be given the names of physicians involved in the committee's investigation.

"Despite this," the statement said, "the AMA and NMA through their own resources have been able to identify a number of physicians grossing more than $25,000 in these programs. . . .

"In some instances, medical societies had already taken appropriate action against individual physicians where the evidence warranted. In other instances, however, the AMA and the NMA have found that many of the physicians presumably included in the committee's study are dedicated physicians working in isolation in slum and rural areas who are literally being overwhelmed by a tide of sick humanity. . . .

"We, therefore, believe it would be unfortunate if the committee's report leads the public to believe that Medicare and Medicaid are riddled with fraud or that the number of physicians abusing the programs is large. Such is not the case. . . ."

The report said that incomplete and partial listings indicated 4,300 individual practitioners plus an additional 900 physician groups each received at least $25,000 from Medicare in 1968, including 68 who received $100,000 or more. The report also included a long list of physicians by state receiving $25,000 or more from Medicaid in 1968. None was named; listings were by code numbers.

* * *

"Hundreds of the payments profiles indicate that the physicians involved might be abusing the program," the report said. "For example, we found many general practitioners each paid $15,000, $20,000 or more for laboratory services. We found large payments being made for what appear to be inordinate numbers of injections. In many cases, we found what is apparently overvisiting and gang-visiting of patients in hospitals and nursing homes.

"The staff believes that the majority of physicians on whom information was gathered provided medically necessary services for which they were entitled to charge and be reimbursed. On the other hand, Medicare's payments structure did little to discourage—in fact, it encouraged—high fees, and thus may well have contributed to the very substantial payment totals to those same physicians."

Recently, the Social Security Administration reported that about 2,500 cases had been investigated for fraud or abuse during the first three and one-half years of Medicare. It was emphasized that this was only a minuscule fraction of total medicare transactions. Social Security Commissioner Robert M. Ball said:

"Medicare pays about 30 million doctors' bills and 12 million bills from institutional providers of services each year. It is clear from our investigations that the number of attempts at fraud or abuse is relatively very small."

About half the cases investigated, he said, resulted from clerical errors, misunderstandings or honest mistakes by physicians and health services. To Jan. 20, 1970, the SSA had referred the cases of 13 individuals and organizations to the Justice Department with recommendations for criminal prosecution for fraud. Two physicians have been convicted in U. S. district courts and indictments have been returned against another five physicians and one nonphysician. Another five cases had been referred with recommendations that civil proceedings be started for the return of illegally collected funds. Early this year, social security investigators also were preparing an additional 35 possible fraud cases for referral to the Justice Department.

The most common types of alleged violations reported include physicians and providers billing for services not rendered, excessive charges, alteration of bills, duplicate billing, misrepresentation of types of services or dates of services, unreported discounts, or kickbacks and employee embezzlement, Medicare officials said.

The report's recommendations were aimed at providing "bases for remedying the serious, costly and pervasive problems" of the two programs and make them "work more efficiently and economically." However, it was conceded that physicians constitute the cardinal factor.

"The key to making the present system workable and acceptable is the physician and his medical society," the committee staff said. "We are persuaded that at this point in time neither the government nor its agents have the capacity to effectively audit medical practice to assure that a given physician functions responsibly in dealing with the publicly financed programs.

"While there is growing awareness among many physicians of the need for the profession to effectively police and discipline itself, performance has been spotty and isolated so far. Prompt action is necessary by organized medicine (and other health professions) to do what is required with respect to monitoring care provided and charges made for the care. . . .

"However, procedures which involve peer review should not be undertaken without precise spelling out and assurances that such review will be comprehensive and effective—not paper and token."

Report recommendations:

—Fee schedules for physicians' services.

—Generic prescribing of drugs.

—"Curb overutilization by requiring prior professional approval of elective procedures and expensive courses of treatment."

—Require the patient to name a "primary physician" to end "costly 'doctor shopping.'"

—Require states to provide Medicaid recipients with statements outlining payments made in their behalf.

—Modify present law "to make practicable reasonable cost-sharing payments by the medically indigent."

—Prohibit independent collection and discount agencies from collecting Medicaid or Medicare due bills that providers have sold to them.

—Improve federal administration and establish cooperative arrangements with and between states.

—Establish a Medicaid fraud and abuse unit in HEW and require states to establish similar units.

—Combine the Medicare and Medicaid advisory councils.

* * *

The American Medical Association urged changes in proposed federal regulations concerning fraud under the Medicaid program.

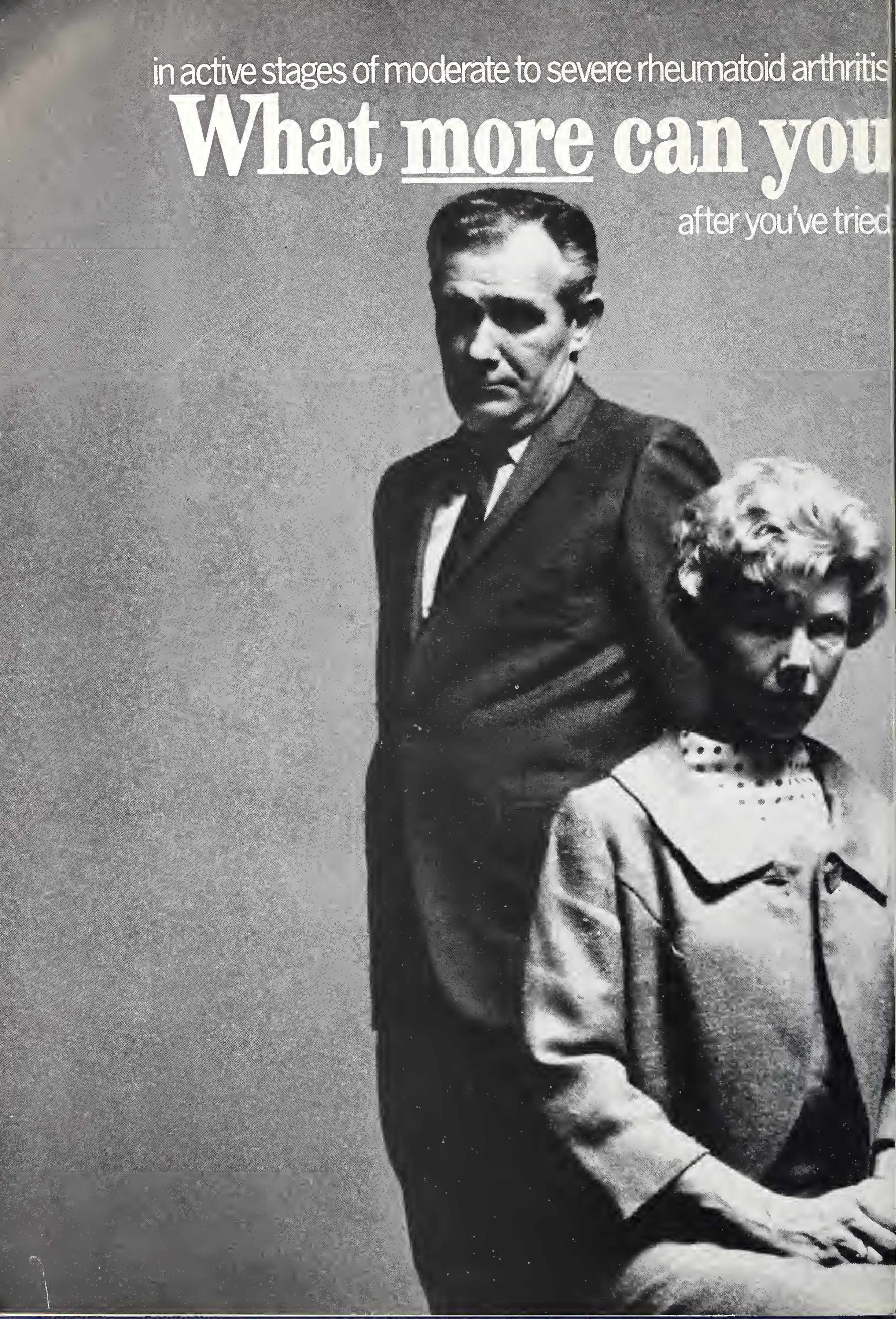
"While we do not condone in any way any fraudulent conduct of physicians in Title XIX (Medicaid) or in any professional activity, we do believe that physicians will consider the new requirements an unwarranted affront to their integrity in their participation in the program," Dr. Ernest B. Howard, Executive Vice-President of the AMA, said in a letter to John D. Twiname, acting administrator of the Medicaid program.

One of the proposed regulations would require physicians to sign form statements certifying that their claims were correct and that they understood fraud could subject them to prosecution.

These statements, Dr. Howard said, would serve no useful purpose because physicians already know that false claims could lead to prosecution. On the other hand, the regulation would be "regarded as offensive by many physicians since it obviously impugns their integrity," the AMA letter said.

The other proposed regulation would require state agencies to promptly report suspected cases of fraud

"It is obvious that serious prejudice may result to a physician where the suspicion of fraud is publicized," the AMA said. "Even when the fraud is not later established, irreparable harm to the reputation of the physician will still have resulted. . . . We believe it will be better procedure not to report each suspected case, but to include in the report only those situations where the case has been concluded and fraud has been established."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Dr. Dimond Speaks to Doctors at Meeting of Sixth Councilor District

Approximately 100 physicians from the Missouri State Medical Association's Sixth Councilor District met in Warrensburg on January 14 for the first district meeting to be held by the MSMA in several years.

The meeting was the first reflection of a suggestion made by Immediate Past-President David N. Kerr for "restablishing the local-state communications, especially in regard to reestablishing the Councilor District meetings to which state officers may come to present more information about state problems on a day-to-day basis."

Featured speaker at the meeting in Warrensburg was Dr. E. Grey Dimond, Provost for Health Sciences of the University of Missouri at Kansas City, whose topic was "Changing Ways of Becoming a Doctor." Dr. Dimond discussed the problems of training and keeping physicians in Missouri and a possible solution to at least a part of these problems.

Dr. Dimond, who is chief planner for the medical school, told the physicians that the future of the University of Missouri-Kansas City Medical School depends entirely upon whether or not the Missouri Legislature makes a financial commitment by June. He said that the Kansas City-based program should result in a "major increase in the number of physicians in residence in Missouri." He said that he hopes it will be a means of assuring that Missouri-trained physicians would remain in the state to practice.

Dr. Dimond said that the proposed program would result in a six-year, after-high school education plan for medical students, shortening the total in-class time by two years. "This way," he said, "we would be getting more, better-trained physicians faster than we now are."

Other MSMA officers who attended the meeting included Drs. Doyle C. McCraw, President; Joseph L. Fisher, President-Elect; and Gerald L. Miller, Chairman of the Council.

Dr. McCraw spoke to the group about problems confronting the MSMA and Dr. Miller discussed activities of the MSMA Council.

Special guests included Missouri Senator and Mrs. William J. Cason from the 31st Senatorial District and Mrs. James A. Reid, President of the Woman's Auxiliary to the MSMA.

Dr. William D. Bradshaw, Councilor for the Sixth District, presided at the meeting.

—Photo Courtesy of *The Daily Star-Journal,* Warrensburg

Shown attending the meeting of the Sixth Councilor District in Warrensburg are officers of the Missouri State Medical Association and the featured speaker, Dr. E. Grey Dimond, Provost to the Health Sciences at the University of Missouri-Kansas City. *(Left to right)* Dr. William D. Bradshaw, Clinton, Councilor for the Sixth District; Dr. Doyle C. McCraw, Bolivar, President of the MSMA; Dr. Gerald L. Miller, Chairman of the MSMA Council; Dr. Joseph L. Fisher, St. Joseph, President-Elect of the MSMA; and Dr. Dimond.

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WILLIAM L. DONEGAN, M.D. *and* **HUGH S. HARRIS, M.D.**, *Columbia*

Metastatic Colorectal Carcinoma—Response to Hepatic Infusion

A Review

The liver is the most frequent site of bloodbourne metastatic carcinoma. Except in rare instances in which solitary metastases lend themselves to resection, involvement of this organ indicates incurability.[1-3] The progress of tumor within the liver can have a major influence upon patient survival, even in the presence of metastases elsewhere in the body. When productive of great mass, it is often a source of pain and distress.[4] For these reasons, measures which effectively halt or delay the progress of intrahepatic cancer promise palliation in terms of longevity and comfort.

In 1959, Sullivan developed the rationale for continuous intra-arterial infusion of antimetabolites and first employed it for regionally confined cancer. Subsequently, the technique was applied in various anatomic locations,[5] and reports indicated that continuous infusion of the liver to limits of tolerance in repeated courses was followed by regression of hepatic metastases originating from a number of primaries.[6-8] Using the antimetabolite fluorouracil, this technique has been employed since 1964 at the Ellis Fischel State Cancer Hospital for treatment of selected patients with unresectable primary metastatic cancer in the liver, and metastases from the colon and rectum have proved the most responsive. Relatively low doses and continuous, long term outpatient infusion has practically eliminated hepatotoxicity while producing a high rate of useful responses. This report is a review of results to date with treatment of 14 patients with metastatic colorectal carcinoma, some of whom were included in a previous publication.

A review of the results to date of prolonged infusion of the liver with 5-Fluorouracil used for palliative treatment of 14 patients with hepatic metastases from carcinoma of the colon or rectum. This paper was presented originally at the Third International Symposium on the Loco-Regional Treatment of Tumors in Turin, Italy. Dr. Donegan is Surgeon and Associate Scientist, Ellis Fischel State Cancer Hospital and Cancer Research Center and Associate Professor of Surgery, University of Missouri School of Medicine. Dr. Harris is Surgeon and Assistant Scientist at the Hospital and Assistant Professor of Surgery at the School of Medicine. This work was supported by Cancer Clinical Research Grant No. CA-08023 from the U. S. Department of Health, Education and Welfare, National Cancer Institute, National Institutes of Health.

Materials and Methods

Between November, 1964 and August, 1969, 14 patients with metastatic intrahepatic carcinoma from the colon or rectum were treated with regional infusion at the Ellis Fischel State Cancer Hospital, an institution for medically indigent residents of Missouri. The ages of the eight women and six men who were treated ranged from 36 to 78 years, with a mean of 65 years. Patients were not clinically jaundiced at the time treatment was initiated, but several had obvious hepatomegaly and abnormal liver function tests and the metastases were unresectable in all cases. In ten instances metastases were from lesions of the colon and in the remaining four, from lesions of the rectum. In all cases, the primary tumor was resected prior to beginning infusion therapy and the presence of unresectable metastases was proved by open biopsy and histologic examination. In two instances, the primary had been removed elsewhere and the pathologic stage was unknown. Of the remaining 12 lesions, 11 were Duke's C carcinoma and one was a Duke's B. On four occasions, the catheter was placed during the same operation at which the primary was resected; in the remainder, the primary had been previously removed and the catheter was inserted at a laparotomy performed specifically for that purpose. While on five occasions the portal vein was the route of infusion, in the remaining cases a branch of the hepatic artery was utilized, usually the gastroduodenal artery. Standard techniques for catheter insertion were employed, and proper distribution of the infusate to the liver was determined by injection through the catheter of either 5% sodium fluorescein (which fluoresces under ultraviolet light) or 5% patent blue violet. In almost all instances, a fine teflon catheter served as the conduit. Fluorouracil was used exclusively and was initiated during hospitalization with a Fenwal Pressure Bag apparatus or by means of a portable Chronometric Infusor and continued for periods of time varying from ten days to nine and one-half months.[10] In general, low dose continuous infusion was continued for at least two weeks and, when possible, for as long as benefits were in evidence. The usual dose was 250 mg of 5-Fluorouracil per 24 hours, although patients treated early in the series for two weeks only received 500 mg per 24 hours. With the chronometric infusor, it was necessary for outpatients to return only every seven days for a refill of the drug reservoir; when taught to refill the reservoir themselves, less frequent visits could be arranged. Progress of the patients was followed periodically with physical examinations, serologic tests of liver function and hepatic scans.

Results

There was one hospital death in the series of 14 patients, a mortality rate of 7.1%. This was an elderly woman with advanced hepatic involvement who required a second laparotomy for replacement of a leaking polyethylene catheter. She rapidly developed ascitric fluid and died of progressive liver failure. Infusion therapy was interrupted at ten days and a complete course was not possible. Seven additional patients succumbed to their disease. Six individuals are still alive and three continue on long-term infusion. The maximum total dose of 5-Fluorouracil which was received by any one patient was 71 gm.

The definition of an objective response to treatment was a detectable reduction of intrahepatic tumor mass during therapy, as documented on a scan of the liver (Fig. 1). By this definition, an objective response to therapy was detected in seven patients—a response rate of 50% based on the total 14 patients or 54% if based on the 13 patients who received a minimum of 14 days of therapy (Table 1). Two patients whose hepatic scans showed improvement also had a regression of clinically detectable hepatomegaly.

TABLE 1

OBJECTIVE RESPONSE OF COLORECTAL CARCINOMA TO HEPATIC INFUSION WITH 5-FLUOROURACIL (1964-1968)

Primary	*Number Treated*	*2 Wk. Min. Rx*	*Number Response*	*Per Cent*
Colon	10	9	5	55.5
Rectum	4	4	2	50.0
	—	—	—	——
Total	14	13	7	53.8

The overall response rate of 53.8% indicates the percent of patients treated for a minimum period of two weeks who had an improvement of the hepatic scan during infusion therapy. In five of the seven responders, there was an associated improvement in hepatic function.

On four occasions, the route of infusion was through the portal vein. In none of these cases was an improvement of the liver scan detected. All seven responses occurred during 11 infusions of the hepatic arterial system.

A reduction in tumor mass was often accompanied by improvement in liver function tests. Five of the six responders who initially had abnormal serologic tests showed return of one or

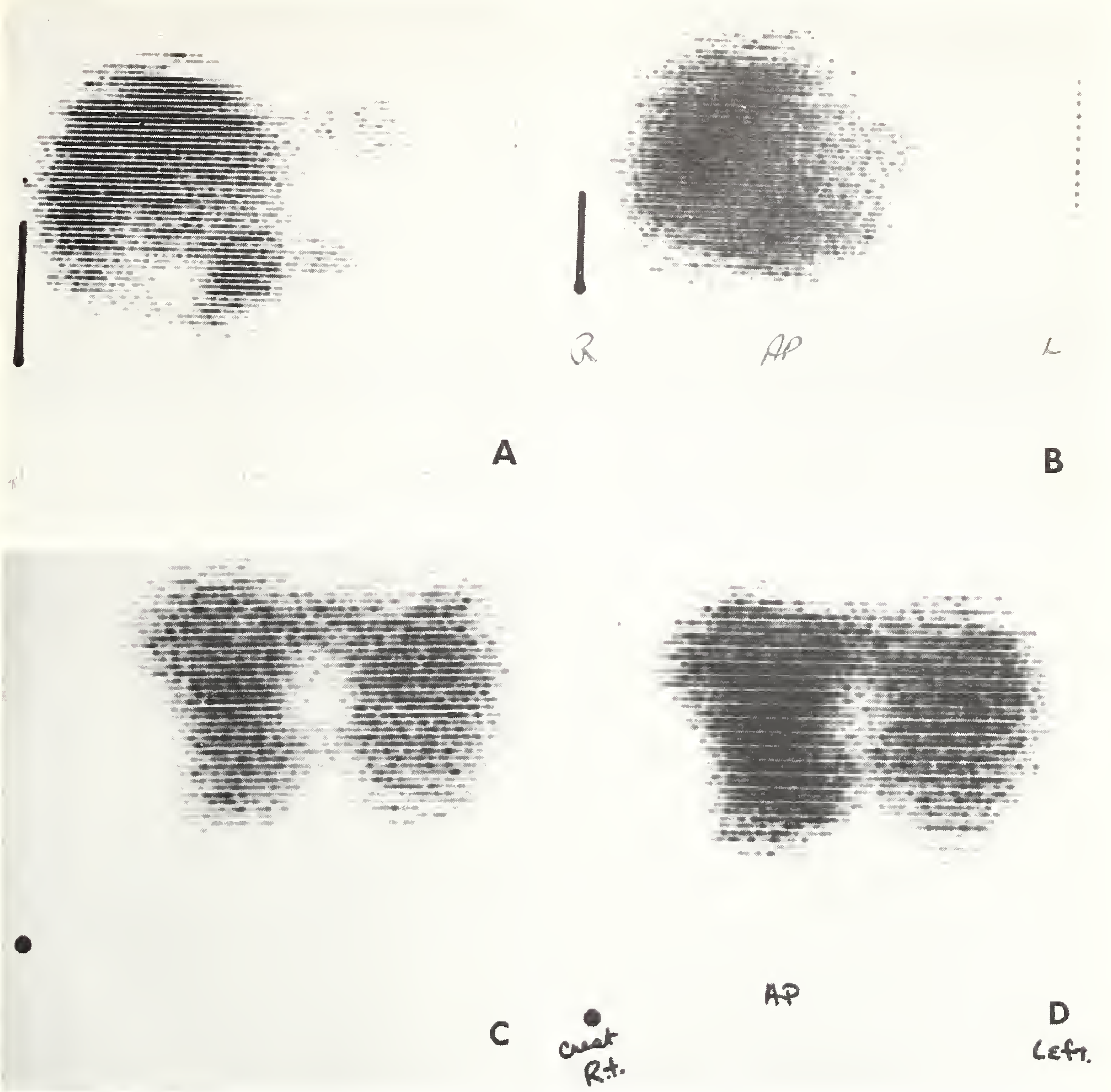

Fig. 1 Hepatic scans (radioactive gold 198 Au) of two patients showing the extent of involvement before infusion (A and C) and improvement during treatment, with reduction in size of defects due to tumor masses (B and D).

more to normal. No patients were clinically jaundiced, but one with chemical jaundice reverted to normal during treatment and three of six who had elevated alkaline phosphatase values showed a decline to normal. In five, either the SGOT or LDH resumed normal values. Only two, who had no detectable response to therapy on liver scans, showed improvement of functions; one involved the SGOT and the second the alkaline phosphatase.

The median delay between the diagnosis of hepatic metastases and initiation of infusion spanned a period of slightly more than two weeks (16.5 days). If the one patient who died in the hospital and did not receive a satisfactory course were eliminated, the survival after initiation of treatment of the remaining patients to the time of death or, if living, through July 1969, ranged from 47 to 1,004 days with a median of 222 days. The survival from the time of diagnosis of hepatic metastases ranged from 73 to 1,112 days with a median of 145 days. A comparison of survival between patients who responded to therapy and those who had no detectable response is difficult because of the continued survival of a number of patients, and the durations of survival are continuing to grow. Median survivals, which are less likely to change under these circumstances than the mean, indicate that the response group surpasses the no response group by 78 days or approximately two and one-half months (299 days vs. 221 days). If the survival of dead patients only is considered, the two patients who responded had a mean survival of 371.5 days and the five who did not respond had a mean of 355.8 days, a small difference, but based upon few figures.

Fig. 2 represents graphically the actuarial survival of the treated patients compared with the actuarial survival of 46 untreated patients from the records of this institution with a similar extent of hepatic involvement by metastatic colorectal carcinoma. In both the treated and the untreated, the diagnosis and the extent of the disease was established at laparotomy. The degree of liver function impairment also was roughly comparable. The survival over a ten-month period of the treated group compares favorably with that of those untreated, and the treated individuals in whom objective regression of tumor was detected fared better than those who were treated but had no detectable regression.

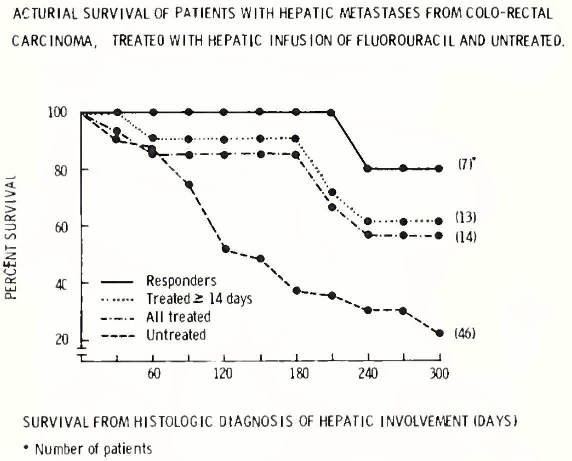

Fig. 2 The actuarial survivals of treated patients compared favorably with that of 46 retrospective untreated patients who served as controls. The controls were selected from a survey of all untreated patients with hepatic metastases at the Ellis Fischel Hospital and were comparable to the treated patients in a number of important respects. Like the treated patients their metastases were from adenocarcinomas of the colon and rectum, were diagnosed histologically at the time of a laparotomy and were observed to involve both lobes of the liver. Similarly their liver function was adequate to permit laparotomy and there was an absence of ascites, osseous, pulmonary and cutaneous metastases at the time of diagnosis. They all survived through the immediate postoperative period. In all groups, survival was calculated from the date of diagnostic laparotomy.

The treatment regimen employed resulted in a notable absence of morbidity resulting from drug toxicity. In the entire study, there occurred no instance of leukopenia or thrombocytopenia, nor was the occurrence of chemical hepatitis observed. Complications, most often technical, are shown in Table 2. Six or 43% of the 14 individuals had one or more significant complications. On three occasions, the catheters became either displaced from the vessel, broken or perforated. A laparotomy was performed to correct this complication in two individuals; one subsequently died of liver failure and the second went on to have a gratifying response to treatment. A symptomatic duodenal ulcer, which developed during therapy in a patient with a history of ulcer disease, was managed satisfactorily with medical therapy without discontinuing hepatic infusion. One individual, who was re-explored surgically because of persistent right quadrant pain thought to be cholecystitis, probably exhibited a complication of regional drug toxicity. A walled-off portion of the gastric antrum was discovered. It lay within the area of the stomach being infused by the chemotherapeutic agent through an unligated right gastric artery. Thrombosis of the hepatic artery secondary to a dissecting aneurysm which occurred during catheter placement in one case resulted in postoperative abnormal hepatic function tests over a two-week period, but there were no other consequences. Transient E. coli septicemia followed catheter placement in one instance. The source was never determined, and

TABLE 2

COMPLICATIONS OF HEPATIC INFUSION CHEMOTHERAPY FOR COLORECTAL CARCINOMA

Complication	*Number*	*Per Cent*
Hospital death	1	7
Hematopoietic depression	0	0
Thrombosis of hepatic artery	1	7
Symptomatic duodenal ulcer	1	7
Perforated gastric ulcer	1	7
Catheter leak or extravasation	3	21*
Postoperative septicemia	1	7

43% of patients had one or more complications of therapy.
* Two required second laparotomy.
One hospital death resulted after an elderly woman with advanced hepatic metastases required a second laparotomy for replacement of a leaking catheter. Noticeably absent from the series was evidence of hematopoietic depression (white blood cell count less than 3000/MM^3 or platelet count less than 100,000/MM^3), and chemical hepatitis was not observed.

the patient responded satisfactorily to antibiotics.

Discussion

Palliative therapy must always be evaluated in terms of adding quality as well as quantity to life. Some patients were temporarily relieved of upper abdominal discomfort and, therefore, derived symptomatic benefits from treatment, but these results were difficult to evaluate on an objective basis. Because of the ordinarily poor prognosis associated with metastatic cancer of the liver, all patients were officially considered totally disabled despite any clinical improvement. In some instances, however, ordinary activities were resumed. The men were all retired and, therefore their return to work could not be used as a measure of performance. Perhaps a more compelling and answerable question is whether chemotherapy added to the duration of life. Despite the one hospital death which occurred, it appeared that hepatic infusion, administered in a long-term, low-dose regimen, as described, resulted in a net gain in longevity over no treatment at all. This observation is based on the comparison of actuarial survival of treated patients with that of retrospective controls over a ten-month period when a uniform starting time (time of diagnosis at laparotomy) was adopted and the patients were matched for a number of variables related to the degree of hepatic involvement. The fact that regressions were frequent and were associated with greatest longevity tends to support this presumption. In view of the imperfection of clinical examinations and the limitations upon the current technology of hepatic scans, the fact that a regression was not detected in any particular instance does not exclude it as a possibility. The authors are aware of the pitfalls in seeking to ascribe increased survival to chemotherapy. Difficulties arise from the lack of a tried, reliable and prognostically accurate staging system for metastatic cancer confined to the liver. That subtle variations exist in the general condition of patients at the date upon which the calculation of survival is begun, that early deaths perforce fall into the group of nonresponders and that patients foreordained by the tumor-host relationship to live longest have a greater chance to display a regression, all make evaluation difficult. It is pertinent to point out that little delay occurred between the diagnosis of metastases in the liver and initiation of therapy in the present study, an expeditiousness which tended to prevent selecting patients for treatment who already had demonstrated their ability to survive. Ancillary treatment, a consequence of the physician's urge to do all possible for his patient, also can interfere with the evaluation of all isolated therapeutic measures. In the present study, five patients, two of whom responded to infusion and three of whom did not, had earlier or later courses of systemic chemotherapy to which there was no objective response and which presumably did not affect their longevity. It is a source of support for the authors' conclusions regarding survival that Watkins and associates also have evidence that hepatic infusion results in increased longevity. An aggressive regimen of infusion in which intermittent courses were taken to hepatotoxic levels resulted in a mean of 7.3 months additional survival for patients with moderately advanced hepatic impairment (Stage III) when measured from the time of first clinical symptoms of liver involvement and when compared with similar untreated patients.

Whether infusion results in a net gain greater than is possible with optimum systemic chemotherapy with similar agents is uncertain. The objective regression rate in the present study was considerably greater than those reported in the literature with fluorouracil for similar tumors.[11] Possibly, only a direct clinical trial for comparison can settle the question. If results were comparable, systemic therapy would seem the more convenient and would avoid the immediate risk of laparotomy which the present authors feel is necessary for proper and permanent catheter placement. However, the problems of toxicity, often encountered with intravenous therapy were not seen in this study and constitute a limitation upon systemic treatment.

Hepatic infusion as an adjuvant to surgical resection of apparently localized colorectal carcinoma should be evaluated. The results with perioperative systemic Thio-TEPA as a surgical adjuvant to colon resection have not been encouraging. Dwight *et al* detected no increase in five year survival of 469 cases so treated over that of 595 controls who received no adjuvant Thio-TEPA.[12] However, increasing knowledge about tumor growth and the great length of mitotic cycles of some cancer cells make long-term continuous chemotherapy with antimetabolites appear more promising than brief courses of alkylating agents. The effectiveness of chemotherapy generally is greatest upon growing and dividing cells, and antimetabolites must be actively metabolized by the cancer cell to be effective. If the growth rates of metastases within the liver are in any way equivalent to those of primary colon tumors as measured by doubling times and if there is an advantage in giving antimetabolites for the doubling time of the tumor, then, in view of the slow growth of colon cancers, more extended periods of treatment would appear necessary. Spratt found the median doubling time of colon and rectal cancers to be 563 days.[13] The 80% confidence limits for the mean doubling times of 375 colon carninomas according to Welin included periods from 1,155 to 138 days. Thus, there is a rationale based upon observed growth rates of neoplasms of the large bowel for continuous treatment lasting for more than three years.[14] This rationale is pertinent to both infusion of the liver as palliation and as a surgical adjuvant. Appreciation for this rationale has encouraged the authors to employ increasing durations of infusion.

Accurate evaluation of the possibilities and limitations of infusion therapy requires a systematic investigation, and the authors have been rather rigid in applying it. Treatment has been confined to the consistent use of a single agent in the interests of obtaining a base line from which to assess altered dose schedules, alternative chemotherapeutic agents and combination therapy with two or more agents simultaneously. To improve evaluation of results, much work also needs to be done to define accurately the prognostic outlook and the significant host-tumor factors of patients with advanced as well as with early cancers.

SUMMARY

Infusion of the liver with 5-Fluorouracil was used for palliative treatment of 14 patients with hepatic metastases from carcinoma of the colon or rectum. Teflon catheters were inserted into the regional vasculature of the liver at laparotomy, and metastases were biopsied for histologic confirmation. Low dose, continuous infusion of 5-Fluorouracil was administered for as long as 9.5 months without hematopoietic depression or obvious hepatotoxicity. One patient with advanced intrahepatic metastases who required re-exploration died in the immediate postoperative period of liver failure, constituting a hospital mortality of 7.1. Seven of the remaining 13 individuals or 53% had objective regressions of their neoplasms documented on isotopic scans of the liver. Improvement in liver functions accompanied objective regressions of metastatic masses in five of the seven cases. The actuarial survival of the treated group was superior to that of 46 untreated patients with colorectal carcinoma who had a similar extent of metastases and comparable impairment of liver function. The authors conclude that regional intra-arterial infusion of the liver with 5-Fluorouracil results in a high rate of tumor regression in patients with metastatic primaries of the colorectum and is apparently accompanied by a net improvement in survival over untreated individuals. Long duration of therapy and avoidance of toxic morbidity may be a more useful therapeutic technique than repeated attempts to reach the limits of regional tolerance for the drug. The superiority of this technique to systemic chemotherapy with similar agents and in similar circumstances and its usefulness as a surgical adjuvant are yet to be established.

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Cold Injury

Cold injury is incapacitating and often results in loss of digits or a lifetime of Raynaud's phenomena. However, it has been inadequately described and treated. The authors emphasize the need for proper therapy with this review of current information of the pathophysiology of cold injury and three reports showing the course of frostbite. Dr. Jarrett and Dr. Paletta are from the Department of Surgery, Section of Plastic Surgery, St. Louis University School of Medicine.

COLD INJURY is the term applied to tissue damage secondary to excessive exposure to cold. This injury may manifest itself in the acute form of frostbite or as the late sequelae of trenchfoot or immersion foot. In any of these forms, it is an incapacitating injury, often resulting in loss of digits or a lifetime of Raynaud's phenomena. Yet, it is an entity which has been inadequately described and treated by physicians, primarily due to a lack of proper information regarding the pathophysiology of cold injury. A review of the current information known about cold injury and reports of three cases showing the course of frostbite are presented in this paper in order to emphasize the need for proper therapy.

HISTORY

In 1812, Larrey[1] first described trenchfoot by describing the effects of cold upon Napoleon's army during the Russian campaign, in which tens of thousands of French soldiers were incapacitated due to trenchfoot. Eighty-five thousand cases of trenchfoot were reported in the British army alone in World War I.

Immersion foot became prominent in World War II when many American sailors were adrift on open rafts in cold sea water.

The more acute form of cold injury, frostbite, has been well known to mankind throughout history. American schoolchildren have all read of the sufferings of General Washington's men at Valley Forge. More recently, 115,000 American soldiers suffered frostbite in World War I; 50,000 in World War II; and 8,000 in the Korean War.[2]

CLINICAL PICTURE

Immersion foot, according to Meryman,[3] results from exposure to cool or cold water for days or weeks at air temperatures above freezing. During rewarming, the extremities develop anesthesia, severe edema and, eventually, hyperemia and anhydrosis. This stage may last hours to weeks and is followed by an extensive posthyperemic period during which there is hypersensitivity to cold and vasomotor instability. In severe cases, there is a superficial gangrene and loss of superficial skin and often the tips of the toes. Sequelae of even mild cases are cold sensitivity and pain on weight bearing which may be severe and last for years.

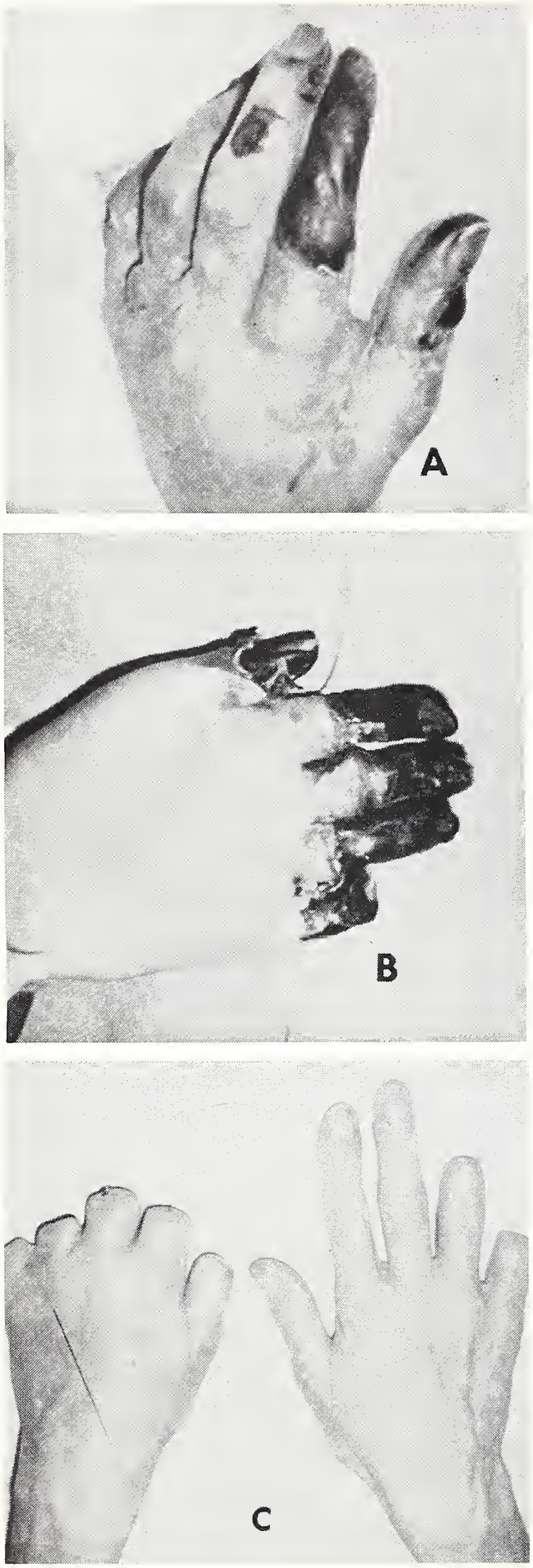
Trenchfoot has been described by Meryman[3] as a "wet-cold" disease secondary to moisture at or near the freezing point. Clinically, trenchfoot is nearly identical to immersion foot.

Frostbite can best be described as an actual freezing of the appendages upon exposure to subfreezing temperatures with resultant gangrene of frostbitten tissue (Figs. 1, 2 & 3).

PATHOPHYSIOLOGY OF FROSTBITE

In 1952, Meryman[2] published a review in which he concluded that frostbite was a mechanical, thermal injury to the specific tissue cells exposed to the cold and that the resultant tissue loss was due to cellular destruction from intracellular ice crystallization. This publication, plus a similar one by Lewis,[4] perpetuated the concept that only supportive therapy should be given the victims of frostbite.

Many other investigators,[1, 5–9] however, have supported the other school of thought which states that the necrosis of frostbite is due to ischemia secondary to vasoconstriction rather than to cellular freezing. When exposed to cold, skin vessels constrict and blood flow is reduced in order to diminish heat loss and maintain body temperature. This vasoconstriction results from a direct and persistent response of the superficial vessels to cold stimulation of the vasomotor center, both directly by the cooled blood reaching it and, reflexly, by afferent im-



←Fig. 1 A 60-year-old white man was exposed to 15 degrees below zero. (A) Three weeks after frostbite. (B) Six weeks after frostbite. (C) Postoperative result was finger amputation.

pulses from the cooled area. This decrease in blood flow makes a fall in limb temperature inevitable and, thus, a vicious circle is established.

Sjostrom and Weatherly-White[6] performed skin grafts between normal and frozen ears of rabbits and found that frozen skin survived very well when grafted to a normal bed, but normal skin became necrotic on frozen ears. This certainly indicates that frozen skin is viable if it can receive blood supply.

Several investigators[8, 9] have shown via arteriograms that frostbite may produce distal arterial spasm, A-V fistulization and complete occlusion. The spasm and fistulization were reversible by sympathectomy.

EFFECT OF FROSTBITE ON OTHER SYSTEMS

The skeletal system may be affected by frostbite, especially in the hands of children.[10, 11] X-rays of hands of children following frostbite may show epiphyseal sclerosis, fragmentation and destruction. The epiphysis may disappear entirely or partially or may undergo premature fusion of a part resulting in varus or valgus angulation.

Degenerative changes in the axis cylinders of nerves have been reported[12] as early as two hours after frostbite, resulting in complete destruction of the axons.

The skin of a frostbitten extremity may chronically ulcerate. These ulcers may undergo malignant degeneration[13] and, thus, should be biopsied.

TREATMENT

The treatment of acute frostbite should begin with rapid rewarming of the involved extremities in a warm bath at body temperature. Baxter and Entin[14] have shown that the common home remedy of slow warming at room temperature prolongs the period of circulatory embarrassment and, thus, is harmful. To be most effective, the thawing should be immediate, rapid, penetrating (warm water or diathermy) and should not exceed the normal temperature of the part by more than a few degrees. This rapid thawing increases pain and will require analgesic and sedation.

Frostbitten digits then should be dressed in well-padded, bulky hand dressing with a nonadhesive vaseline base type gauze. The dress-

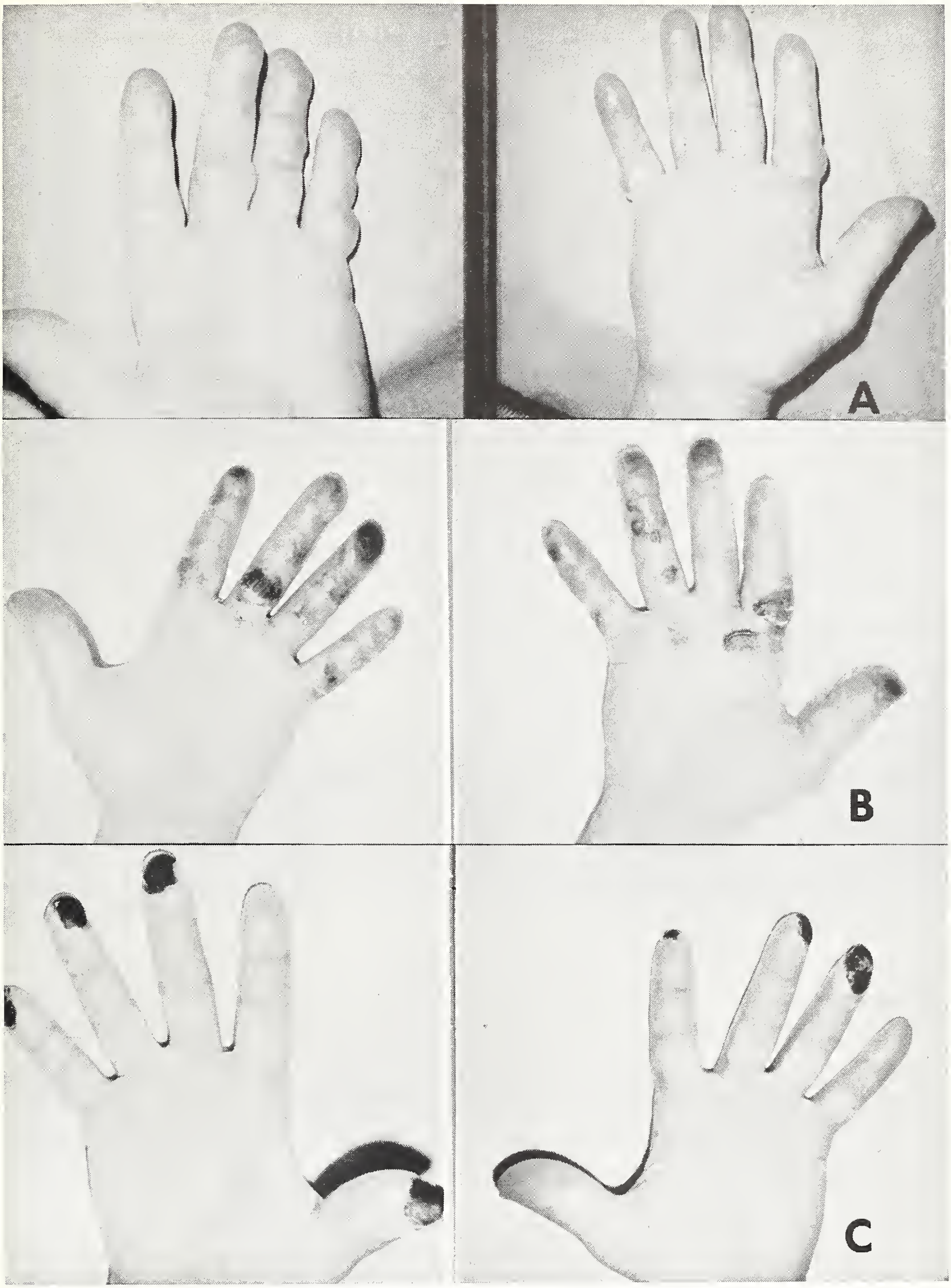


Fig. 2 A 55-year-old white man was exposed to 5 degrees below zero. (A) Two days after frostbite. (B) Twelve days after frostbite. (C) Six weeks after frostbite.

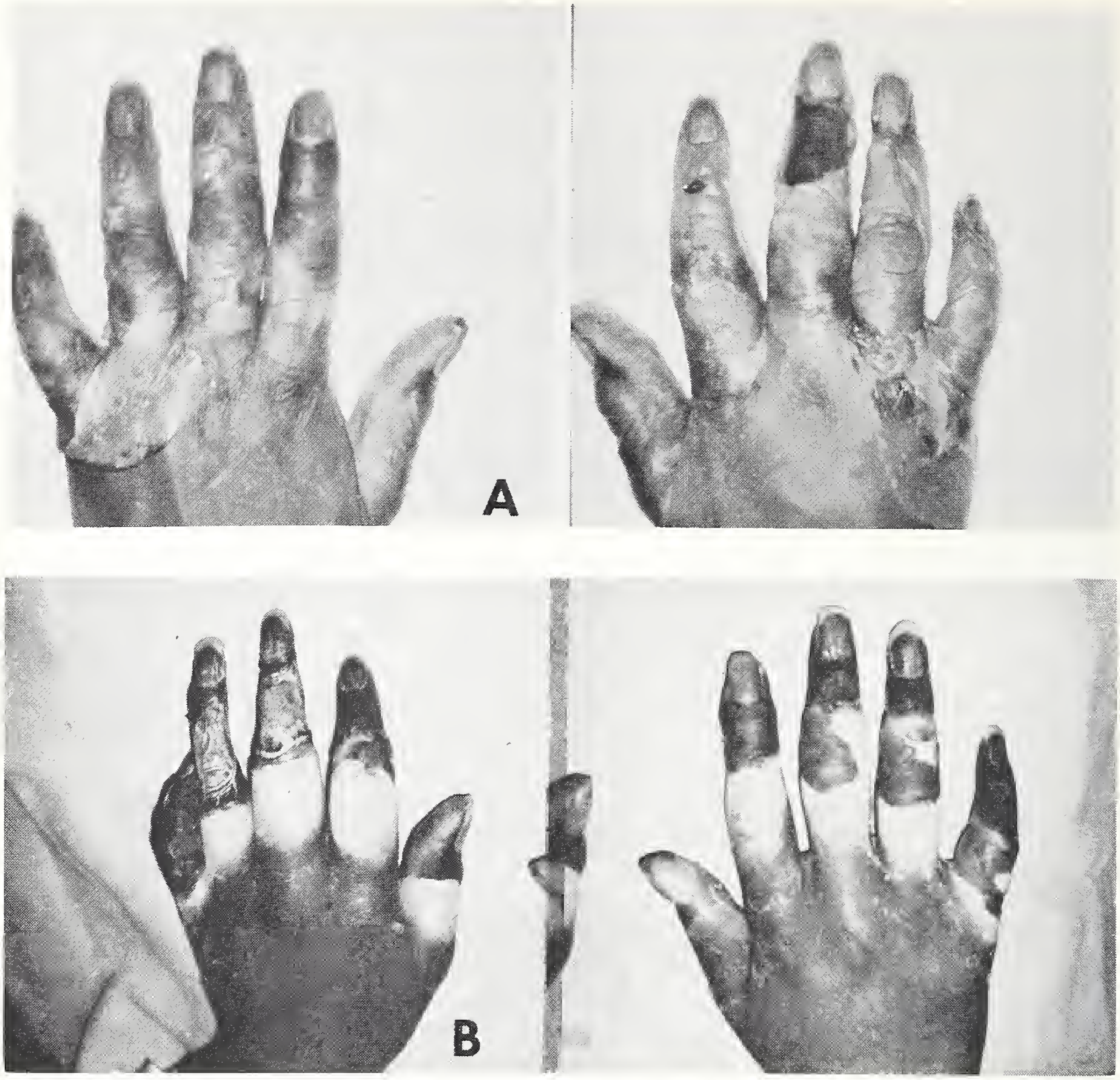
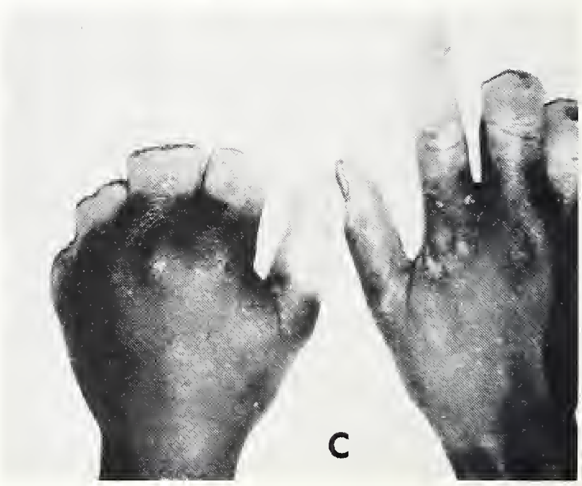


Fig. 3 A 40-year-old Negro man was exposed to 15 degrees below zero. (A) Three weeks after frostbite. (B) Six weeks after frostbite. (C) Postoperative result was finger amputation.



ing should completely immobilize the digits to decrease edema. The involved extremity should not be allowed to be in a dependent position. Blisters should not be debrided early, but drained when they become tense. Blister skin should be left intact.

Shumacher and others[15-17] have demonstrated the value of regional sympathectomy in the treatment of both acute frostbite and the late sequelae of frostbite, trenchfoot and immersion foot. In the acute frostbite, sympathectomy produces prompt decrease of pain and edema, more tissue conservation, more rapid demarcation and faster healing of amputated parts. For the late sequelae, sympathectomy improves the circulation, produces disappearance of coolness, pallor, hyperhydrosis, vasospastic complaints and greatly relieves Raynaud's phenomena. Shumacher feels sympathectomy is indicated as soon as possible in any reasonably good-risk patient with frostbite severe enough to indicate likely gangrene or tissue loss.

Wesolowski[15] has reported unilateral sympathectomy in 25 cases of bilateral frostbite with significant benefit to all 25 of the treated extremity. Furthermore, one year later, all 25 reported pain, paresthesia and hyperhydrosis in the untreated extremity compared to only two with mild pain in the treated extremity.

Golding[16] has shown that sympathectomy performed within 24 hours of acute frostbite will greatly decrease the amount of edema and produce faster resolution of edema.

Goodhead[17] and Mundth[18] have shown that low molecular weight dextran (LMWD) greatly improves tissue survival if given within several hours of the frostbite and then given as a daily basis for five days. Heparin may be used in place of LMWD if kept up continuously for five days.

Summary

The history, pathophysiology and treatment of cold injury, with particular attention to frostbite of the hands, has been presented by a review of the literature and presentation of three cases. Present information certainly indicates that tissue necrosis following frostbite is largely due to ischemia secondary to vascular insufficiency which is amenable to reversal if proper therapy is instituted. Proper therapy consists of rapid thawing in warm water at body temperature, immobilization of digits, occlusive dressings, LMWD given immediately after the injury and sympathectomy within 24 hours. Sympathectomy alone is very beneficial for extremities suffering from the late sequelae of frostbite, trench-foot or immersion foot.

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Seminar Series in Nuclear Medicine

A seminar series in Nuclear Medicine has been established at the Kansas City General Hospital by the Radioisotope Division in cooperation with the Medical Staff. The following speakers will participate:

March 26, 1970—Wil B. Nelp, M.D., University of Washington—"Lung Function."

April 24, 1970—Henry N. Wellman, M.D., Bureau of Radiological Health—"Pediatric Nuclear Medicine."

All professional and technical persons interested in these topics are invited to attend. The seminars will be held in the Jackson County Medical Society Auditorium at the Kansas City General Hospital at 24th & Cherry in Kansas City at 4 PM on the dates indicated.

JEAN-RENE DUPONT, M.D. *and*
JOSEPH C. BLANTON, M.D., ***Sikeston***

Neonatal Respiratory Distress Secondary to Mediastinal Bronchogenic Cyst

Case Report

NEONATAL RESPIRATORY DISTRESS presents a frightening clinical picture which may tax the skills of both the pediatrician and the surgeon. Two causes of this condition, both of which require early surgical intervention, are congenital lobar emphysema[1] and mediastinal bronchogenic cysts.[2] They may simulate each other in clinical appearance. When treated early, an excellent prognosis may be expected. On the other hand, in nonoperated cases, mortality rates of 100% have been recorded for mediastinal bronchogenic cysts.[3] Whereas these cysts may present at any age and be asymptomatic, they can cause obstructive pulmonary emphysema and neonatal respiratory distress in infancy. A day-old infant recently was admitted to the Missouri Delta Community Hospital with this clinical picture and was successfully treated. Review of the English literature on mediastinal bronchogenic cysts as a cause of neonatal respiratory distress disclosed only eight successfully treated cases on record. Since the condition is readily corrected with prompt surgical intervention, we call attention to this entity as a cause of respiratory distress in infancy.

CASE REPORT

A day-old white girl was referred to the Hospital by her family doctor some ten hours after delivery. She had developed respiratory distress with intermittent cyanosis, diminished breath sounds on the left and a respiratory rate of 130. During the next ten hours, the child developed several episodes of this nature. Chest x-ray demonstrated what appeared to be an enlarging cyst-like structure in the left superior mediastinum and left hemithorax[1] (Fig. 1).

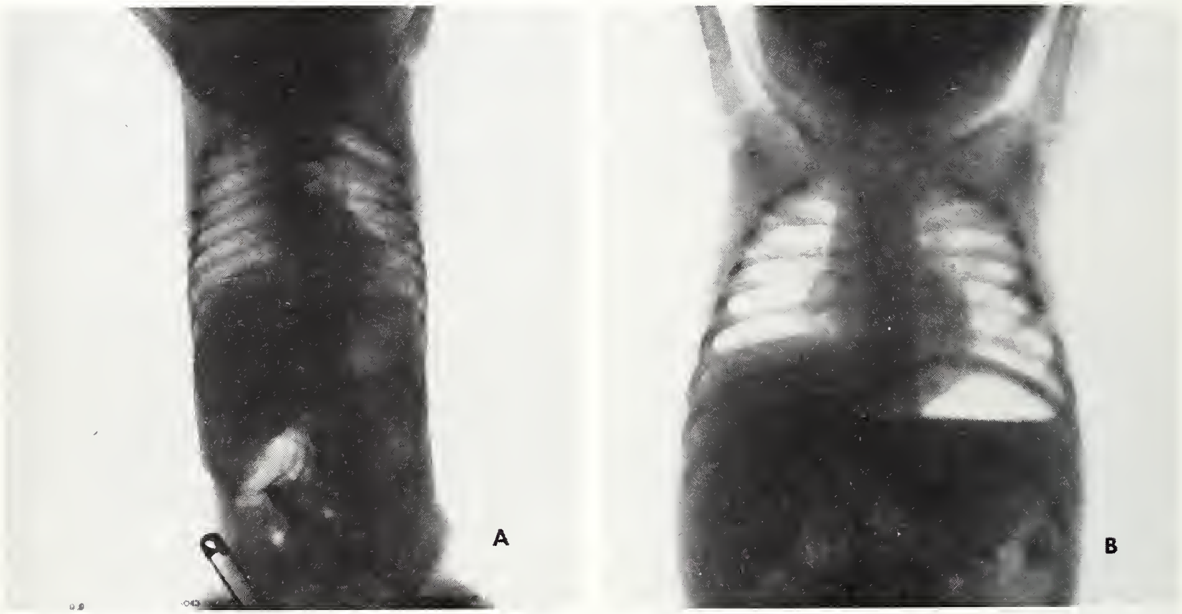

Fig. 1 *(Left)* Chest shortly after admission illustrates partial atelectasis of the left lung as well as a cyst occupying the superior mediastinum. The cyst can be seen immediately retrosternally and appears to be closely associated with the thymus. It extended over into the left hemithorax. No definite connection to the tracheobronchial tree could be demonstrated. *(Right)* Postoperative view of the infant shortly before discharge from the hospital.

There was a mild tracheal shift to the right. Otherwise, the baby was well.

Routine laboratory tests were normal. The diagnosis of congenital lobar emphysema was made and left exploratory thoracotomy was performed. At surgery, we found several blebs in the upper lobe of the left lung and the lingula interspersed with areas of atelectasis. The real pathology, however, was a large mediastinal cyst compressing the mediastinal structures as well as the upper lobe of the left lung and main-stem bronchus. The cyst contained air and no communication could be demonstrated with the tracheobronchial tree or the esophagus. After complete excision of the cyst, the chest was closed with water seal drainage. Postoperatively, the patient's course was uncomplicated and she was discharged some two and one-half weeks after admission. She subsequently has been followed in the office for nearly one year and has had no evidence of recurrence of her disease or further pulmonary problems.

DISCUSSION

Haller[4] recently has classified mediastinal masses in children. He points out that duplication cysts account for 12% of all mediastinal masses in children. Most of these constitute embryonic abnormalities either of the tracheobronchial or gastrointestinal systems. They rarely communicate with the respiratory tree and, therefore, cannot be demonstrated by bronchography.

The symptomatology in these cases depends upon the location of the cysts. In our case, the obstructive emphysema was due to impingement upon the left main-stem-bronchus and, also, gave rise to a certain degree of segmental atelectasis. Symptoms are the usual ones of respiratory distress: chest retraction, cyanosis and diminished breath sounds. There may be a shift of the mediastinal structures away from the involved lung.

Congenital lobar emphysema is difficult to differentiate from obstructive emphysema due to mediastinal bronchogenic cysts. Alshabkhoun[3] reported 17 symptomatic mediastinal cysts. Only eight of these were diagnosed at surgery. Szots and Jakab[5] have reported their case urging early surgical intervention. Most recently, Gerami *et al*[6] have added the eighth case of successful surgical management of this condition to the literature.

Report of a case of neonatal respiratory distress syndrome secondary to mediastinal bronchogenic cyst which was successfully managed by prompt diagnosis and surgical intervention. The pathophysiology was caused by a large mediastinal cyst compressing the left main-stem-bronchus and the left lung. Only nine instances of successful surgical management of this entity have been reported to date in the English literature. The authors are from the Department of Surgery and Pediatrics, Ferguson Medical Group and Missouri Delta Community Hospital.

Excision of the cysts usually is curative and technically not difficult. There would seem to be little reason to subject these children to bronchoscopy since this procedure carries a definite risk in the very young infant. If bronchoscopy is embarked upon, it should be as a prelude to thoracotomy and should be carried out in the operating room with preparations to proceed with full scale exploration of the chest.

SUMMARY

A case of mediastinal bronchogenic cysts causing obstructive pulmonary symptoms and respiratory distress in the neonate has been reported. The case was successfully managed by prompt diagnosis and surgical intervention. A plea is made for an aggressive approach to neonatal respiratory distress.

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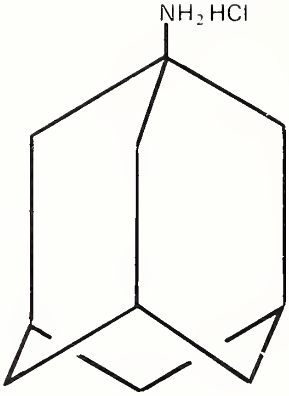
HAROLD E. WALTERS, M.D., *St. Louis and*
MARVIN PAULSHOCK, Ph.D., *Wilmington, Del.*

Therapeutic Efficacy of Amantadine HCl

The inhibitory activity of amantadine HCl (Symmetrel) (Fig. 1) against influenza A viruses was shown in the laboratory by Davies *et al* in 1964.[1] Additional laboratory studies[2-4] which were carried out in tissue cultures, eggs and mice indicated that the drug appears to block or slow viral penetration into host cells rather than act as a virucide. When used prophylactically, amantadine HCl increased survival rates of mice exposed to influenza A, A_1 and A_2 viruses. Antiviral activity also was shown when the drug was administered 72 hours after exposure to the virus. Amantadine HCl was shown to have prophylactic activity in horses challenged with influenza A/equine 2.[5] The curative or therapeutic action of the drug in mice with influenza A-type infection was shown by McGahen and Hoffmann.[6]



Amantadine Hydrochloride

Fig. 1 Structural formula for amantadine hydrochloride.

The prophylactic administration of amantadine HCl to man[7-9] has been shown to diminish the occurrence and severity of experimentally-induced influenza A_2 illness. The drug has also proved to be effective when used prophylactically in double-blind studies during naturally occurring outbreaks of influenza A_2.[10-15]

Methodology

During December, 1967 and January, 1968, a clinical study was carried out at the Masonic Home for the Elderly in St. Louis to determine the efficacy of amantadine HCl in the treatment of influenza A_2 respiratory illness during a natural outbreak. Influenza A_2 virus was isolated in St. Louis from patients during January, and serologic evidence for influenza A_2 was obtained in St. Louis during this period.

The outbreak in the Home lasted about three weeks. The study patients had influenza symptoms for not more than 48 hours prior to the beginning of dosing. In general, temperature was 100 F or higher and patients had one or more influenza symptoms, such as myalgia, malaise, nasal discharge, sore throat, cough and headache. The severities of the signs and symptoms of influenza were rated on admission. None of the patients in the study had been vaccinated for influenza during 1967-1968 or prior to 1967.

The study was carried out in a double-blind manner with identical capsules containing either amantadine HCl (100 mg) or inert placebo. The medications were administered as one capsule twice daily for ten days. Patients who entered the study after 2 PM received only one capsule on the day of admission.

Blood samples were drawn on the first and 21st days for diagnostic serology. These samples were shipped frozen to Gilbert M. Schiff, M.D., University of Cincinnati, Cincinnati, Ohio for complement fixation serology. They were later shipped to Yasushi Togo, M.D., University of Maryland, Baltimore, Md. for hemagglutination inhibition serology. They were assayed by the complement fixation and hemagglutination inhibition methods. Complement fixation antigen

In a double-blind, placebo-controlled clinical study in a home for the aged, amantadine HCl was shown to be an effective therapeutic drug in the treatment of patients who developed influenza A_2 respiratory illness during a natural outbreak. Amantadine HCl significantly accelerated the rate of defervescence. The drug was well tolerated.

Dr. Walters is in the private practice of medicine. Dr. Paulshock is Clinical Research Associate at E. I. duPont de Nemours and Company.

was influenza A soluble antigen obtained from Microbiological Associates, Bethesda, Md. The virus antigen used for hemagglutination inhibition serology was A_2/Georgia/1/67.

A throat swab for virus isolation and bacteriologic culture was obtained on admission to the study and on either the second or third day of the study. White blood cell and differential cell counts were performed on each of the first five days. Chest x-rays were obtained on the first and 11th days of the study.

Urinalyses were carried out on specimens obtained on the first and 11th days of the study.

Body temperature, oral or rectal, pulse rate and respiration recordings were taken four times a day during the ten-day medication period during which patients remained hospitalized.

A check list of signs and symptoms which may occur in patients with influenza were rated for severity once a day during the ten days of medication as follows: 0 = not present; 1 = mild; 2 = moderate; 3 = severe; 4 = very severe.

Results

Thirteen of the 17 patients receiving amantadine HCl and 15 of the 18 patients receiving placebo had serologically confirmed A_2 influenza respiratory illness. All patients were white; two patients from each medication group were men. The 13 patients receiving amantadine HCl had an age range of 64-99 years (mean age = 82.7 years). The 15 patients receiving placebo had an age range of 67-95 years (mean age = 80.7 years). Patients receiving amantadine HCl had a mean weight of 114.8 lb; those receiving placebo, 126.4 lb. For the amantadine HCl group, the mean time which elapsed between the onset of illness and the start of medication was 12.4 hours; for the placebo group, 8.1 hours.

TABLE 1

SIGNS AND SYMPTOMS

Signs

Apathetic Appearance
Flushed Facies
Conjunctivitis
Hyperemic Nasal Mucosa
Nasal Mucosal Swelling
Nasal Discharge
Pharyngitis
Soft Palate Petechae
Soft Palate Vesicles
Tonsillitis
Coated Tongue
Otitis Media
Lymphadenopathy
Abnormal Breath Sounds
Altered Fremitus
Rales and/or Rhonchi
Abdominal Tenderness
Muscular Soreness

Symptoms

Fever
Headache
Chills or Chilliness
Sweats
Malaise and Fatigue
Myalgia
Joint Pain
Eye Pain or Burning
Photophobia
Eyes Watery
Nasal Stuffiness or Discharge
Sneezing
Sore, Dry or Scratchy Throat
Laryngitis
Cough-Dry
Cough-Productive
Chest Pain
Shortness of Breath
Epistaxis
Anorexia
Nausea
Vomiting

The therapeutic effectiveness of amantadine HCL was judged principally by the differences in the rates of defervescence between the drug group and the control (placebo) group. It is important to note that the mean temperatures

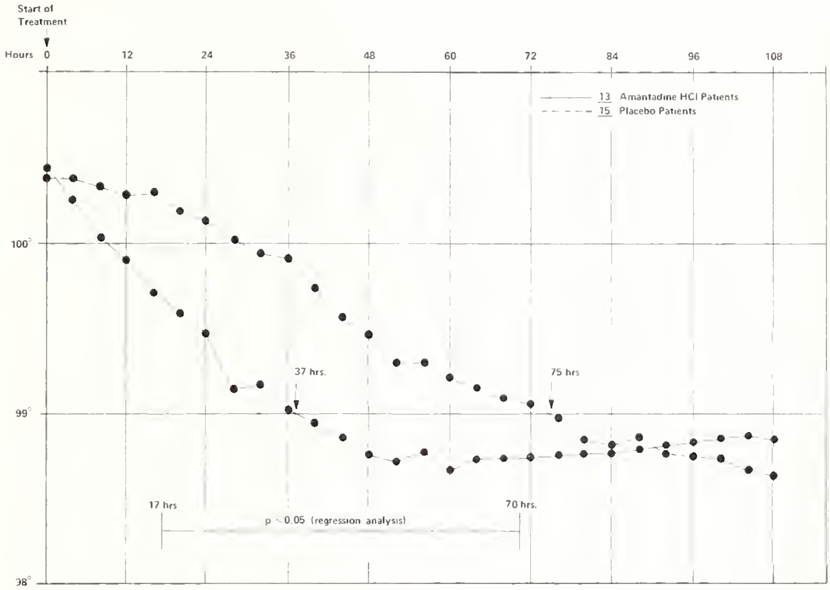


Fig. 2 Flowing means of body temperatures.

Temperatures for 4—20 hours are means from beginning of medication period. Temperatures for 24 hours through 108 hours are 24-hour means ending at 4-hour intervals.

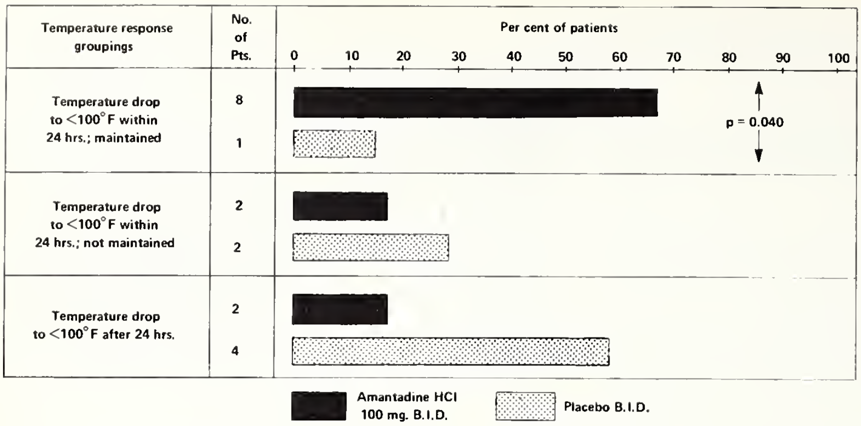


Fig. 3 Patterns of temperature responses.

upon admission were the same for both medication groups, namely 100.4 F. (All rectal temperatures were corrected by substracting 1 F.) All body temperature data recorded during the first 108 hours after onset of dosing were utilized to develop a moving 24-hour mean body temperature curve (Fig. 2). The mean temperatures for 24-hour periods ending at four-hour intervals were determined for each patient along with mean temperatures for the first four, eight, 12, 16 and 20 hours of medication. The mean temperatures for the amantadine HCl group are lower than those for the placebo group from one to 89 hours after initiation of dosing; the difference between the two groups is significant between 17 and 70 hours.

In another analysis of body temperature responses, the two medication groups were compared with respect to the achievement of defervescence below 99 F during the first two days of dosing (Fig. 3). The body temperatures of a significantly larger percentage of the amantadine HCl patients fell below 99 F in less than 48 hours.

Although the differences between the two medication groups were significant with regard to the quantitative measurements of body temperature, no significant differences were found when the more subjective measurements of changes with time of the severity ratings for the signs and symptoms were analyzed. This may be the result of difficulties in measurement of these factors in the very sick, elderly patient and also may be attributable to the extensive use of concomitant drugs during the study. Eleven of 13 patients receiving amantadine HCl and 14 of 15 patients receiving placebo had one or more concomitant drugs during the medication period. There was good balance between the two medication groups, e.g., three of the amantadine HCl group and four of the placebo group received aspirin or Bufferin; 11 amantadine HCl patients and nine placebo patients received a sedative, hypnotic or tranquilizer; and 11 amantadine HCl patients and 13 placebo patients received an antihistamine, anti-asthmatic drug or cough medicine. All but two amantadine HCl patients and one placebo patient received an antibiotic during the medication period; administration of the antibiotic drug usually began within the first 24 hours after patients entered the study.

There was no significant difference between the two medication groups with regard to white blood cell counts and differential cell counts. Urinalyses were within normal limits. No significant pathologic bacteria were isolated from throat swabs. Three patients receiving amantadine HCl and two patients receiving placebo had x-ray evidence of acute inflammatory reaction interpreted as pneumonia.

Two patients died during the ten-day dosing period. One 92-year-old man receiving amantadine HCl died of pneumonia on the sixth day in spite of administration of antibiotics, and one 78-year-old woman on placebo died following an acute myocardial infarction on the fourth day of medication. There was one death one week after the ten-day dosing period. A 78-year-old woman who had received amantadine HCl died following a cerebral vascular hemorrhage. The three patients who died had had generalized arteriosclerosis and arteriosclerotie heart disease. None of the deaths was considered to be related to the study medication.

One patient receiving amantadine HCl and one patient receiving placebo, both 94 years old, developed mental confusion during the dosing period. The confusion disappeared by the tenth medication day in the patient receiving amantadine HCl, but persisted two weeks after the medication period in the patient receiving placebo. There were no other significant complaints during the 10-day period of medication.

Discussion

An opportunity to use amantadine HCl in the treatment of influenza A_2 respiratory illness was provided by the outbreak of this disease throughout the United States in 1968. Careful and frequent clinical evaluation was essential because of the short duration and self-limiting nature of the illness. Of the patients who were admitted to study, 80% had serologically confirmed A_2 influenza. Clinical data from these patients only were considered in the analyses of efficacy of the test medication.

Clinical response that can be anticipated from any therapeutic drug used in the treatment of influenza is limited. The problem of assessment of therapeutic efficacy in a geriatric population, where complete recovery from influenza illness is often delayed and sometimes complicated by secondary illness, was recognized. In this study, the wide use of concomitant drugs added further difficulties to the evaluation of results. The use of antibiotics and other drugs in a high risk geriatric population was considered a therapeutic necessity by the attending physicians. In spite of the factors discussed above, which are inherent in a study in a geriatric population with influenza, the therapeutic efficacy of amantadine HCl was demonstrated by the changes in body temperature during the medication period.

Our results indicating good tolerance of amantadine HCl in an elderly population are in accord with those of Leeming,[16] who administered the drug to 70 patients for 25 days at a daily dose of 200 mg and noted no undesirable side effects. Although the adverse reactions noted in the literature which accompanies amantadine HCl[17] (Symmetrel) were not observed in this study, the recommendation concerning careful observation of geriatric patients receiving amantadine HCl should be followed. As a general principle, geriatric patients with preexisting medical illness and with mental or physical deterioration should be checked frequently for possible clinical intolerance to any prescribed medication.

Results from earlier clinical trials had shown the prophylactic efficacy of amantadine HCl. The therapeutic efficacy shown in this study and in a study carried out at Texas prisons during 1968[18] suggests that the time of administration of amantadine HCl for prophylactic activity may not be critical. Depending on the progress of the infection, i.e. virus replication within the cell, amantadine HCl could be expected to exert both prophylactic and therapeutic activity.

Summary

The results of a controlled clinical study of amantadine HCl in the treatment of geriatric patients with serologically confirmed A_2 influenza respiratory illness show that the drug was effective in reducing the severity and duration of clinical illness as measured by more rapid defervescence when given within 48 hours of the development of signs and symptoms. In general, amantadine HCl was well tolerated.

Acknowledgement: Coded medications for this study, consisting of Amantadine HCl (Symmetrel) and placebo capsules, were supplied by E. I. duPont de Nemours and Company, Wilmington, Del.

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President's Message

Among the important purposes of the Missouri State Medical Association are "the extension of medical knowledge and the advancement of medical science, along with the promotion and elevation of the standards of medical education."

At the present time, our Association is principally fulfilling these purposes by conducting an annual two-day scientific session which is held as a part of our state meeting. I am certain that we will be doing even more in the continuing education field in the future.

Doyle C. McCraw, M.D.

The 112th Annual Meeting of our organization is just a month away. It will be held April 2-5 at the Hotel Muehlebach, Kansas City.

I have read the preliminary program for the scientific session and I note with pleasure that an outstanding program is in the offing—one which will offer topics of interest for every physician in Missouri. The program appears on page 140.

Dr. Richard Yore and the members of his Scientific and Postgraduate Education Committee have again formulated a program in which every Missouri physician can take pride.

The scientific portion of the annual meeting certainly is not the only reason for attending, however.

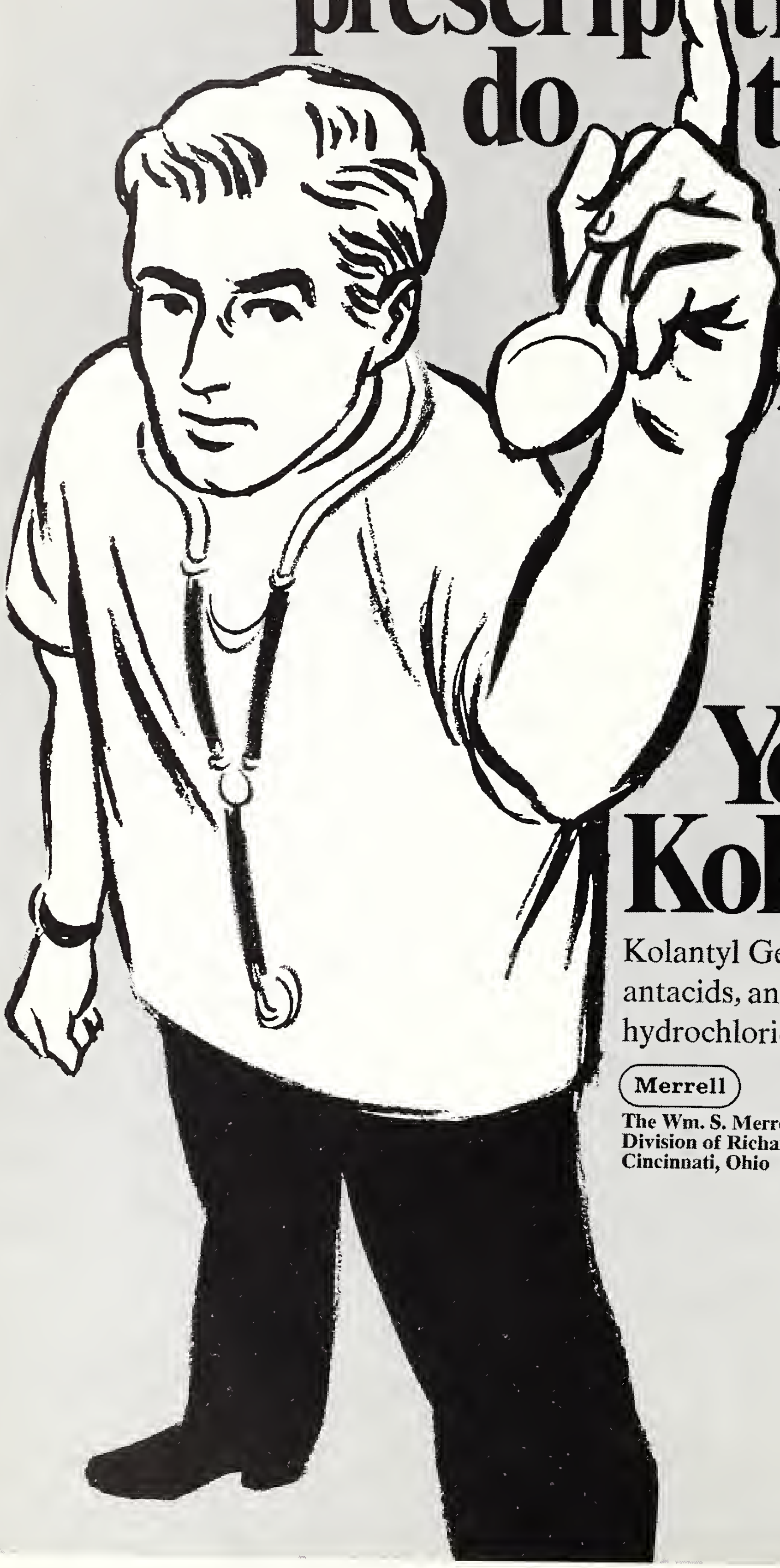
The House of Delegates of our Association will hold three important sessions during the meeting—sessions which may be attended by all interested physician members.

All Missouri Medical Association members, not just Delegates alone, may have their say about all issues which will come before the House. The opportunity to speak comes when these topics are brought before various reference committees in open hearings. All members of our Association are invited to appear before these reference committees.

Many items of great interest to all physicians will come before the House of Delegates at the April meeting—items which could have a far reaching effect on the future of medicine in our state and nation.

I realize that all Missouri physician members of our Association cannot attend every annual meeting of the organization. But I do believe that it is most important for every member to make a real attempt to attend these meetings as often as possible.

I, personally, am looking forward to the 112th Annual Meeting of our organization in April and I hope that I will be seeing you there.



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Woman's Auxiliary

In just one month, the Woman's Auxiliary will close the 1969-1970 year. With this in mind, we need to evaluate and to weigh the accomplishments of the past year. The Auxiliary has a continuing program and the change of officers makes little difference.

Mrs. James A. Reid, President

Four areas of concern have been uppermost in thought this Auxiliary-year:

1. *Membership*—Mrs. Thomas Thale, Ballwin, Chairman. Our efforts regarding membership are continuous. Do we inspire our members to be concerned about problems facing the organization? Do we have an exciting project?
2. *Health Careers*—Mrs. James S. Key, Springfield, and Mrs. Robert Blalock, Marshall, Co-Chairmen, have spent much time and effort in this area. A pilot program is being worked out in Saline County to make it possible for all junior and senior students to have an opportunity to see a hospital in action and observe the physical therapist, medical technician, nurse and administrator at work. The students will receive printed information about some 250 job opportunities and the necessary requirements for schooling. This is a fast-moving, age-oriented program.
3. *Children and Youth*—Mrs. Felix Pileggi, Kansas City, Chairman, has emphasized drug abuse. Several excellent films are available at little or no cost. Most schools are eager to cooperate in this joint effort to educate parents, teachers and young people to the dangers of drugs. What is your community doing about the drug situation?
4. *Missouri State Medical Foundation*—Mrs. James Denninghoff, Columbia, Auxiliary Chairman. This fourth area of concern is important. Each county auxiliary has been urged to support this very worthwhile project. This year, about 60 loans have been made by the Foundation to Missouri medical students in need of financial assistance. In what better way can we help this next generation!

The Auxiliary has been involved in Legislation, International Health, Medicine and Religion, Mental Health, Rural Health and Safety and Disaster projects. Since most of the doctors' wives are involved in many community projects, they need to be knowledgeable in many facets—from answering the telephone with patience and tact to planning the State Convention.

It does not follow that we are a privileged class. On the contrary, the community does and can expect more from us because we are members of the physicians' families.

The 1970 Annual Session will be held on April 2-5, 1970 at the Muehlebach Hotel in Kansas City. This will be an interesting, exciting and inspirational meeting of the physicians and physicians' wives. Make your reservations NOW!

EDITORIALS

WHERE DO NEW DRUGS COME FROM?

A representative of one of the nation's largest prescription drug firms poses a question that apparently few people pause to wonder about. He asks: "Where do new drugs come from?" The question is timely, since the vaccine to stem the threat of Hong Kong flu is in one sense a new drug. It had to be developed for the particular strain of flu bug that has been visiting the country.

But to get back to distinctly new drugs and where they come from, the drug spokesman replies, "Not from manufacturers who produce only generic drugs. Of new drug entities originating in this country and marketed between 1940 and 1966, 87% came from research-based firms in the pharmaceutical industry; the rest from government agencies, institutions and universities."

The research-oriented prescription drug industry and the medications it produces are the backbone of our good health in the United States. Therefore, it is strange indeed to witness the continuing attempts of congressional investigators and regulators to discourage use by doctors of trademarked products of prescription drug firms in favor of generic drugs that bear only the name of the active ingredient and which may be manufactured in substandard facilities.

Last year, when it became apparent that a large quantity of a new type of flu vaccine might be needed, the lights in the vaccine laboratories of six prescription pharmaceutical manufacturers burned night and day, seven days a week as these companies tackled the mammoth task of producing millions of doses of vaccine. So, the answer to the simple question of where do new drugs come from is of itself the strongest kind of testimonial to the high performance of the prescription drug industry.

St. Louis County Medical Society Bulletin

NO VACATION FOR A DOCTOR

Took two weeks off, straddling Independence Day, which we used to call the Fourth of July. But then we said Decoration Day for Memorial Day (the British say Remembrance) and Armistice Day for Veterans Day; somebody's always changing things. Doctors don't have a 20-hour week or a 30-hour week or a five-day week or even a 40-hour week. They don't have an anything week; when the telephone rings at midnight, they go to work as though it were noon; and people get sick at midnight just like they do at noon, only more so. So it has become a truism, an unfunny joke, when you want a vacation, if you're a doctor, you have to get out of town. That's why we get more Omaha doctors at a Lincoln state meeting and more Lincoln doctors at an Omaha meeting.

Hanging all the lawyers may not be a bad idea. You come from Maine, but you have to take an examination to practice in Kansas. But when you go on vacation, and drive through Iowa, there's someone sick in the next hotel room, or lying on the highway, and (you may even have been to a cocktail party) nobody cares for your excuses. You're a doctor. You put in 30 or 40 hard years and retire and there comes the most dramatic sound that even Shakespeare could conjure up, the knock at the door, and you're not retired at all. How, we wonder does a doctor retire? When does he stop paying what is erroneously called malpractice insurance?

Vacation, and four miles from a town without a doctor. There was a doctor on a transcountry train and the train got stalled in a blizzard for days. When it was all over, he wrote it up, and we enjoyed reading it and we still remember it. There was cold, and not enough food, and there were the usual pregnant women and the dope addicts, but what he said and what we remember was that nobody cared what kind of a specialist you said you were. On a stranded train, you were a doctor.

When do you stop being a doctor?

Never, that's when.

FRANK COLE, M.D.
The Nebraska State Medical Journal

Attend the 112th MSMA Annual Session—April 2-5, 1970

County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

Buchanan County Medical Society

Forty-three physicians attended the dinner and meeting of the Buchanan County Medical Society at the Ramada Inn in St. Joseph on January 7.

The scientific speaker was Dr. David R. Robinson of Kansas City. A plastic surgeon, Dr. Robinson delivered an interesting and well-received, illustrated paper on "Injuries and Covering of the Hand."

Arrangements for the meeting and program were made by the Program Committee. Members are Drs. Philip C. Lehman, Chairman; Richard O. Craig and Martin J. Fischer. Dr. Owen W. D. Craig, President, presided at the meeting and business session.

E. F. Butler, M.D., *Secretary*

Grand River Medical Society

Twenty-nine members, their wives and guests met at the Strand Hotel in Chillicothe on January 8 for the regular monthly meeting of the Society.

After a smorgasbord, the ladies adjourned to their own Auxiliary meeting where they enjoyed a program conducted by Mr. Myron Ginsberg, a Foreign Exchange Student from South Africa.

Dr. B. D. Howell, President of the Society, introduced the speaker for the program, Dr. Clyde Burch, Associate Professor of Government Business Law at Northeast Missouri State College in Kirksville. His topic was "Current Developments in Medical Malpractice." The subjects he discussed include physician's liability in rendering emergency care, the changing aspects of charitable immunity and sovereign immunity, the statute of limitations, informed consent, product liability and the changing public policy thereof from "let the buyer beware" to "let the seller beware" and liability for the acts of others. The discussion that followed his presentation was lively and informative.

At a short business meeting, the members voted unanimously to accept the invitation of the Buchanan County Medical Society to join with them in sponsoring a hospitality suite at the MSMA Annual Session in Kansas City.

The meeting was adjourned.

Frank R. Daley, M.D., *Secretary*

SECOND DISTRICT

COUNCILOR
LYSLE M. BACH, M.D., HANNIBAL

Chariton-Macon-Monroe-Randolph County Medical Society

The Chariton-Macon-Monroe-Randolph County Medical Society held its monthly meeting at Woodland Hospital on January 8. The program consisted of presentations of interesting case reports by members of the Society.

The following physicians presented case reports: Drs. T. S. Fleming, J. W. Fleming, Jr., C. C. Cohrs, P. Dreyer and D. E. Eggleston.

Members present were Drs. Donald E. Eggleston, Gretchen D. Collins, James E. Campbell, Florian L. Harms, Josephine D. Baker, J. Will Fleming, Jr., Thomas S. Fleming, Robert H. Young, W. Deward Chute, Clarence C. Cohrs, Lasley E. Huber, Philip V. Dreyer, Robert V. Tompson and Floyd A. Barnett.

Clarence C. Cohrs, M.D., *Secretary*

SIXTH DISTRICT

COUNCILOR
WILLIAM D. BRADSHAW, M.D.,
CLINTON

Lafayette-Ray County Medical Society

The Lafayette-Ray County Medical Society met on January 13 at Maib's Cafe in Lexington. Nineteen members and guests were present.

Jerry Meyer, a fourth year student at the University of Missouri School of Medicine, was present as a guest of Drs. Catherine and Wayne Boydston of Odessa, where he is taking his preceptorship.

A dinner meeting was held. A scientific program was not scheduled, however, in lieu of the Sixth District meeting to be held in Warrensburg on January 14.

Wayne Boydston, M.D., *Secretary*

TENTH DISTRICT

COUNCILOR
EUGENE T. HANSBROUGH, M.D.,
POPLAR BLUFF

MINERAL AREA COUNTY MEDICAL SOCIETY

The Mineral Area County Medical Society met at the Farmington State Hospital on January 22 with the following doctors in attendance: Richard A. Fraser, Edward E. Mardini, Charles W. Chastain, Charles E. Carleton, Jr., F. Richard Crouch, Juan Caneelada, Emmett F. Hoctor, Retus W. Osborn, Javier Pichardo, Metin Arat, Charles H. Appleberry, Robert A. Huckstep, William Ford and Kirby L. Turner.

A lecture on "Coronary Angiography" was presented by Yavus Aykent, M.D., professor of cardiology at St. Louis University School of Medicine. Following Dr. Aykent's presentation, Doyle C. McCraw, President of the MSMA, discussed some of the challenges facing the State Medical Association in 1970. Dr. McCraw was accompanied by Mr. Royal O. Cooper, field secretary of the MSMA.

The business meeting was conducted by Dr. Andrew Fraser, President of the Society. The minutes of the October meeting were read and approved.

The term of Dr. C. H. Appleberry on the Credentials Committee expired this year and he was reappointed for another three-year term.

Dr. Fraser read a letter from Mrs. Margaret Simpson, the County Health Nurse, requesting authority for a nurse from the State Health Department to give free immunizations to St. Francois County students at the School for the Retarded. Dr. Crouch moved and Dr. Appleberry seconded the motion that this be approved. The motion passed unanimously.

There was a period of discussion about the excellent relationship which the County Medical Society has enjoyed throughout the years with the St. Francois County Health Department, which is headed by Mrs. Simpson. Dr. Crouch moved and Dr. Huckstep seconded the motion that the Secretary of the Society write a letter to the Judges of the County Court expressing both the Society's appreciation for this cooperation and our support for Mrs. Simpson. This motion also was passed unanimously.

A letter from Dr. Paul F. Max, Speaker of the MSMA House of Delegates, was read. Dr. Max requested submission of resolutions before February 6 for publication. Although the membership vigorously felt that the establishment of another medical school in the state, at the University of Missouri in Kansas City, would be highly desirable, it was felt that the Society's support for this school already is obvious and no formal resolutions from the Society are needed.

Delegates to the 1970 Annual Session of the Missouri State Medical Association were elected. The following doctors were chosen: for St. Francois County—Andrew Fraser, Delegate and Jack Mullen, Alternate; for Madison County—Marvin Grossman, Delegate and Retus Osborn, Alternate; for Iron County—Robert Dettmer, Delegate and F. R. Crouch, Alternate; for Reynolds County, C. W. Chastain, Delegate and C. E. Carleton, Alternate; for Washington County—Kirby Turner, Delegate and George Cresswell, Alternate.

There being no further business, the meeting was adjourned.

C. W. CHASTAIN, M.D., *Secretary*

Three long-time friends and members of the MSMA meet again at the Society meeting. *(Left to right)* MSMA President Doyle C. McCraw of Bolivar; Dr. Charles H. Appleberry of Rivermines; and Dr. Emmett F. Hoctor of Farmington.

Mineral Area Medical Society officers take advantage of MSMA President Doyle C. McCraw's visit to talk "Society business." *(Left to right)* Drs. Edward E. Mardini, Vice-President; Charles W. Chastain, Secretary; Richard A. Fraser, President; and Dr. McCraw.

New Members

John T. Bonner, M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Bonner is a native of Havre, Mont., received his preliminary education at Carroll College and his M.D. degree at the University of Chicago in 1963. He specializes in neurological surgery.

James D. Dexter, M.D., 807 Stadium Dr., Columbia, has become a member of Boone County Medical Society. Dr. Dexter is a native of Independence, received his preliminary education at Baker University and his M.D. degree at the University of Missouri in 1963. He specializes in neurology.

Orlande Meneses, M.D., VA Hospital, Jefferson Barracks, St. Louis, has become a member of St. Louis County Medical Society. Dr. Meneses is a native of Manila, Philippines, received his preliminary education at Philippines Normal School and San Beda College and his M.D. degree at the University of Santo Tomas in 1948. He is in general practice.

Georgia B. Nolph, M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Nolph is a native of Appleton, Minn., received her preliminary education at St. Olaf's College and her M.D. degree at the Woman's Medical College of Pennsylvania in 1964. She is in general practice.

Donald R. Reimer, M.D., Rt. 1, Cape Girardeau, has become a member of Cape Girardeau County Medical Society. Dr. Reimer is a native of Colorado Springs, Colo., received his preliminary education at the University of Colorado and his M.D. degree at the University of Colorado in 1962. He specializes in anesthesiology.

C. John Ritter, M.D., 1902 Broadway, Cape Girardeau, has become a member of Cape Girardeau County Medical Society. Dr. Ritter is a native of Cape Girardeau, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1963. He specializes in internal medicine.

Rolando A. Rodriquez, M.D., 4635 Wyandotte, Kansas City, has become a member of Jackson County Medical Society. Dr. Rodriquez is a native of Oriente, Cuba, received his preliminary education at Havana University and his M.D. degree at Havana Medical School in 1951. He specializes in psychiatry.

Thomas D. Turner, M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Turner is a native of Ellwood City, Pa., received his preliminary education at the University of Illinois and his M.D. degree at the University of Missouri in 1964. He specializes in anesthesiology.

In Memoriam

Burns, Beryl I., M.D., 1510 Bass Ave., Columbia, a graduate of the State University of Iowa, 1934; member of Jackson County Medical Society; aged 81; died Jan. 3, 1970.

Strong, Richard M., M.D., 10 Riverpoint Rd., Hannibal, a graduate of Washington University, 1945; member of Marion-Ralls-Shelby County Medical Society; aged 48; died Jan. 11, 1970.

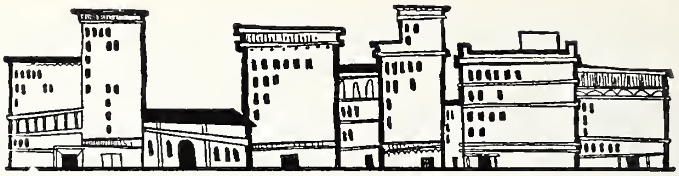
Crego, Clarence H., Jr., M.D., 2 Loren Woods, Ladue, a graduate of the University of Michigan, 1923; member of St. Louis Medical Society; aged 74; died Jan. 19, 1970.

Bruce, James G., M.D., Missouri Hotel, Jefferson City, a graduate of Dalhousie University, 1908; member of Cole County Medical Society; aged 85; died Jan. 22, 1970.

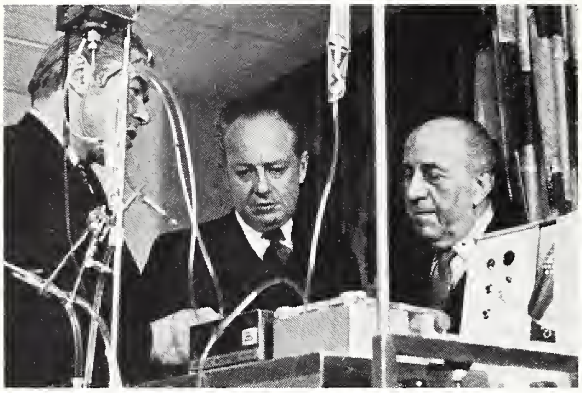
Beam, Sim F., M.D., 35 N. Central Ave., St. Louis, a graduate of Washington University, 1932; member of St. Louis County Medical Society; aged 62; died Jan. 25, 1970.

O'Neill, John B., M.D., 634 N. Grand, St. Louis, a graduate of St. Louis University, 1927; member of St. Louis Medical Society; aged 66; died Jan. 28, 1970.

From the Medical Schools



WASHINGTON UNIVERSITY



Examining one of the five dialysis machines in the newly opened Chromalloy American Kidney Center are *(left to right)* George E. Schreiner, M.D., president of the National Kidney Foundation; Neal S. Bricker, M.D., Washington University School of Medicine professor of medicine and head of the renal division; and Joseph Friedman, Chromalloy American Corporation board chairman. Mr. Friedman's organization provided the $250,000 to create the facility in Barnes Hospital in St. Louis.

George E. Schreiner, M.D., president of the National Kidney Foundation and professor of medicine at Georgetown University, gave the dedicatory address at the opening of the Chromalloy American Kidney Center in Barnes Hospital on Jauary 18.

Joseph Friedman, Chromalloy American Corporation board chairman, also spoke following the presentation of the miniature of the plaque in his honor hanging in the center. His organization gave to Washington University School of Medicine the $250,000 used to create this facility to care for persons suffering from kidney disease.

Under the direction of Neal S. Bricker, M.D., professor of medicine and head of the renal division, 20 patients will come in weekly for treatment with the most modern equipment.

Eduardo Slatopolsky, M.D., assistant professor of medicine, will direct operations of the unit. His staff will include six physicians, four registered nurses, one technician and one secretary.

The Chromalloy American Kidney Center is the first of its kind to be funded entirely by a corporation. Half of the $250,000 contribution was made through the Chromalloy American and Valley Lines Company foundations; the other half was personally subscribed by officers of the companies.

Four School of Medicine faculty members have received a total of $132,000 in research grants from Life Insurance Medical Research Fund. They are Leonard J. Banaszak, Ph.D., assistant professor of physiology and biophysics, who was awarded $46,000 to conduct research on structural studies on heart malate dehydrogenases; Ralph A. Bradshaw, Ph.D., assistant professor of biological chemistry, who received $22,000 for conformational and functional studies of malate and related dehydrogenases; F. Scott Mathews, Ph.D., assistant professor of physiology and biophysics, was granted $30,800 for crystallographic investigation of the structure of calf liver cytochrome b_5; and Milton J. Schlesinger, Ph.D., associate professor of microbiology, received $33,000 to study subunit structure of alkaline phosphatase.

An authority on reproductive biology delivered the Eighteenth Robert J. Terry Lecture at the School of Medicine Auditorium on January 22.

Don Wayne Fawcett, M.D., professor and head of the department of anatomy at Harvard Medical School, spoke on "Some Contributions of Morphology to Reproductive Biology." His research involves understanding the physiology of the male reproductive system as a step towards the development of a means of reversible conception control.

The lecture, honoring the man who was the head of the anatomy department from 1900 to 1941, was established in 1938 to foster greater appreciation of the study of human anatomy in relation to the teaching and practice of medicine. Dr. Terry was active in the department until 1959. He died in 1966 at the age of 95.

UNIVERSITY OF MISSOURI

In a reorganization move to more effectively continue present Medical Center activities, two new clinical departments, the Department of

Ophthalmology and the Department of Physical Medicine and Rehabilitation, have been established at the Medical Center, University of Missouri-Columbia.

Dr. William M. Hart, professor of ophthalmology, and Dr. Lester E. Wolcott, professor of physical medicine and rehabilitation, will be chairman of the departments, respectively.

Previously, the physical medicine and rehabilitation specialty was a section of the Department of Community Health and Medical Practice. The ophthalmology specialty was a section of the Department of Surgery. Giving departmental status to the two specialties is not expected to appreciably affect the programs formerly carried out under the specialty sections.

Dr. Hans O. Mauksch, professor of sociology and head of the section of health care studies at the University of Missouri-Columbia, was a visiting lecturer at the Medical College of Ohio on January 26. He will discuss the role of the allied health professions in modern medicine and the part of social organizations in the etiology, treatment, and rehabilitation of diseases. In January, Dr. Mauksch also participated in two site visits for the U. S. Public Health Service at State University of New York Medical Center in New York City and at the University of Michigan, Ann Arbor.

Dr. Frank B. Engley, Jr., professor and chairman of the department of microbiology at the University of Missouri-Columbia, has been named a consultant editor of two British journals, *Microbios* and *Cytobios*. *Microbios* is a transworld biomedical research journal devoted to fundamental studies of viruses, bacteria, microfungi, microscopic algae and protozoa. The companion journal, *Cytobios,* publishes original investigations into all aspects of cell organization, emphasizing work at the chemical and molecular levels.

Dr. Mortimer L. Mendelsohn, professor of radiology at the University of Pennsylvania School of Medicine, spoke on "Computer Analysis of Microscopie Images" in the Medical Center auditorium with the information science, pathology and radiology departments as sponsors.

Dr. Mendelsohn, who holds an M.D. degree from Harvard Medical School and a Ph.D. degree from the University of Cambridge (England), has been on the faculty of the University of Pennsylvania since 1957. He also has served on the committee on radiology of the National Academy of Sciences and councilor of the Radiation Research Society.

ST. LOUIS UNIVERSITY

Present at signing of first agreement for a Mental Health Care Program to be sponsored by the School of Medicine and Labor Health Institute were (left to right, front row) Harold J. Gibbons, LHI president; Rev. Edward J. Drummond, S.J., vice-president, Medical Center; Dr. Robert H. Felix, dean, School of Medicine. (Back row) Dr. Edward T. Auer, chairman, neurology and psychiatry, SLU; Dr. Bruce A. Heyl, instructor in psychiatry, SLU; and Dr. Edward J. Berger, LHI medical director.

A streamlined curriculum, designed to deliver more practicing physicians, has been established at the St. Louis University School of Medicine under the leadership of Dean Robert H. Felix and is being phased into the four-year medical education program. Designed to cut scheduled teaching in the first two years of medical school by 20% and to provide immediate patient exposure to freshmen, the curriculum was the result of three years of comprehensive study by a ten-man faculty committee chosen by Dean Felix. Dr. Paul A. DeWald, clinical professor of psychiatry at the School of Medicine, was named by the Educational Policy Committee to head the group. He presented a three-phase report to the medical faculty and gained general faculty approval. A total of 134 first-year students began studies in the new curriculum in the 1969-1970 fall semester. Sophomores will be phased into the program in the fall of the 1970-1971 academic year. Senior students changed over in the summer of 1969, while juniors began the program in the fall of 1968.

Dean Felix stated that the following objectives of the streamlined and updated curriculum are fourfold:

1. To provide a sound scientific basis for the practice of modern medicine.
2. To provide adequate clinical experience which incorporates the fruits of research in the treatment of illness.
3. To provide an opportunity for the stu-

dent to explore in some depth areas of medicine in which he develops a particular interest.

4. To provide the student with a knowledge of medical care delivery systems which would be appropriate for the practice of medicine in the last third of the 20th century and the dawn of the 21st century.

Some of the major revisions in the curriculum were as follows:

—Introduction of a Human Biology and Ecology course during the freshman year, thus providing early patient exposure and shortening the period of basic science study for the freshman and sophomore student by 20%

—Individual course rearranged so as to correlate and integrate more effectively the basic sciences with each other and the clinical sciences.

—Introduction of an Ambulatory Care Program, providing a more realistic introduction to the problem of community medical practice.

—Increased elective time.

The Educational Policy Committee continues to meet monthly, under Dr. DeWald's direction, for the purpose of evaluating new programs and any necessary adjustments. Student representatives were invited to join the committee this fall and attend meetings with faculty members.

A five-year agreement for a Mental Health Care Program to be jointly sponsored by Teamsters Local 688 Labor Health Institute and St. Louis University School of Medicine's Department of Neurology and Psychiatry, has been signed by Rev. Edward J. Drummond, S.J., vice president, St. Louis University Medical Center and Harold J. Gibbons, LHI president. The agreement calls for St. Louis University's Department of Neurology and Psychiatry to provide an adult psychiatrist, a child psychiatrist, a psychologist and a psychiatric social worker to work at LHI in the provision of mental health care for the 37,000 eligible LHI members. Dr. Bruce A. Heyl, instructor in psychiatry, St. Louis University, has been appointed to serve as chief of the new section.

The St. Louis University School of Medicine Alumni Association will again sponsor a cocktail party during the MSMA Annual Session. It will be held from 5 PM to 6:30 PM on April 4 in the Music Room of the Muehlebach Hotel in Kansas City.

Dr. Carmine J. Coscia, assistant professor of biochemistry, has received a $35,000 grant from the National Science Foundation for the support of research entitled "Biosynthesis of Iridoid and Bicyclic Monterpenes in Higher Plants." Dr. Coscia and his associates are one of the few research teams in the United States working on the biosynthesis of a group of medically important compounds from plants. It is a relatively unexplored area.

Another recent grant to the School of Medicine was a $6,000 National Kidney Foundation award for the support of a postdoctoral fellow in the Section of Experimental Medicine, Department of Internal Medicine. Dr. Hartmut Kannegiesser is engaged in research under the direction of Dr. James B. Lee, director of the Section. They are engaged in renal metabolism studies. In a clinical study, they have treated 10 to 15 patients with a compound which lowered high blood pressure. The compound, prostaglandin PGA was isolated and characterized by Dr. Lee. The national headquarters receives substantial support from the St. Louis Chapter of the Foundation.

Dr. Thomas F. Frawley, professor and chairman, department of internal medicine, has been appointed to the editorial advisory board of a new journal, *American Family Physician/GP*, published by the American Academy of General Practice.

Taste!

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Your ulcer patients and others will love it. Specify DICARBOSIL 144's—144 tablets in 12 rolls.

ARCH LABORATORIES
319 South Fourth Street, St. Louis, Missouri 63102

Missouri University Is Number One In Producing Dermatologists

The School of Medicine of the University of Missouri-Columbia has produced more living dermatologists than any other institution in the nation, based on per 1,000 graduates, according to statistics released recently by the American Medical Association. The specialty, as a section in the Department of Medicine, deals with the diagnosis and treatment of diseases of the skin.

According to the AMA report, based on graduates through Dec. 31, 1967, 28.4% of the graduates of the University of Missouri School of Medicine have gone on for further training in dermatology.

Missouri graduated its first class of MDs in 1957. With the completion of the Medical Center in Columbia, the medical curriculum was extended to the four years necessary to graduate MDs, whereas in previous years the curriculum was limited to the first two years of medical school and prospective physicians took their clinical training at other institutions.

An approved three-year residency program is offered at Missouri in accordance with the American Board of Dermatology. The division here operates inpatient service at the Medical Center for adults and children and, in addition, 5,364 outpatient clinic visits were recorded last year. Other clinical experience for trainees in dermatology is offered at Ellis Fischel Cancer Hospital and the University Student Health Service in Columbia and at Kansas City General Hospital.

Dr. Norman Asel, chief of the dermatology section at Missouri, said eight physicians are now in training as dermatologists—current capacity for trainees—and that Missouri graduates also are in training at six other medical centers across the nation.

As "number one" in the production of dermatologists, Missouri is followed by UCLA, Duke, Michigan, Puerto Rico, West Virginia, Rush (University of Chicago), USC, Buffalo and New Jersey in the "top ten."

HIGHLAND HOSPITAL

Asheville, North Carolina

FOUNDED 1904

A DIVISION OF THE DEPARTMENT OF PSYCHIATRY OF DUKE UNIVERSITY

Accredited by the Joint Commission on Accreditation and Certified for Medicare

Complete facilities for evaluation and intensive treatment of psychiatric patients, including individual psychotherapy, group therapy, psychodrama, electro-convulsive therapy, Indoklon convulsive therapy, drugs, social service work with families, family therapy and an extensive and well organized activities program, including occupational therapy, art therapy, music therapy, athletic activities and games, recreational activities and outings. The treatment program of each patient is carefully supervised in order that the therapeutic needs of each patient may be realized.

High school facilities for a limited number of appropriate patients are now available on grounds. The School Program is fully integrated into the hospital treatment program and is accredited through the Asheville School System.

Complete modern facilities with 85 acres of landscaped and wooded grounds in the City of Asheville.

Brochures and information on financial arrangements available

Contact: (1) Mrs. Elizabeth Harkins, ACSW, Coordinator of Admissions

or

(3) Charles W. Neville, Jr., M.D.
Assistant Professor of Psychiatry
and Medical Director

(2) Samuel N. Workman, M.D.
Chief of Clinical Services

Area Code 704-254-3201

FINANCIAL STATEMENT FOR THE YEAR 1969

LENNERTSON & COMPANY
Certified Public Accountants

ST. LOUIS, MISSOURI 63105

January 27, 1970

Missouri State Medical Association
515 East High Street
Jefferson City, Mo. 65101

Gentlemen:

A review was made of the accounts of the Missouri State Medical Association, a non-profit Missouri corporation, for the year 1969, and a report thereon is presented together with the following exhibits:

Exhibit A	Balance Sheet
Exhibit B	Income Statement
Exhibit C-1	Statement of Committee and Meeting Expenses
Exhibit C-2	Statement of Investments
Exhibit D	Dues Receivable and Memberships by Societies

It should be noted that members' dues and investment income are taken into income on the cash receipt basis whereas the other accounts are maintained on the accrual basis. Rentals received in advance for Annual Session exhibit space are shown as prepaid and carried forward to the year to which they apply.

Scope of Examination

The Balance Sheet at December 31, 1969 and the Income Statement for the year then ended were reviewed. Examinations or tests were made of the accounting records, in the manner and to the extent deemed appropriate, without making a detailed audit of the transactions.

Recorded cash receipts for the year were traced in total into the bank as deposits and disbursements for the period were substantiated by an inspection of paid checks, purchase invoices and other data on file.

Selective tests were made of the income and expense accounts for the period. It was noted that space in the Journal was contributed to the United States Treasury Department for bond advertising, to members for small classified ads, and to public service organizations.

Income Statement

The financial result of activities of the Association for the year 1969 was an excess of expenses over income of $9,488.56 as set forth in Exhibit B.

Balance Sheet

The financial position of the Association at December 31, 1969 is presented in Exhibit A. Comments on the larger balance sheet accounts follow:

Cash in banks, as shown by the books, was reconciled to the regular monthly bank statements and confirmations received from the depositaries. The petty cash fund was verified by physical count.

Investments with a cost of $111,142.22 were confirmed by a statement from the custodian, Mercantile Trust Co. Investment income for the year was as follows:

Interest—Certificate of Deposit	$3,712.49
Interest and discount on bonds	3,217.40
Dividends on Stock	1,552.25
Total Investment Income	$8,482.14

Accounts Receivable of $5,221.53 represent the unpaid balance due from Journal advertisers. Of this amount $5,173.53 was due from the State Journal Advertising Bureau as follows:

December 1969	$2,412.80
November 1969	2,569.48
Prior to November 1969	191.25
Total	$5,173.53

On January 9, 1970, a check was received paying $2,273.10 of the November and prior accounts.

Unpaid dues of $1,843.80, offset by a reserve account in like amount, represent 1969 dues of delinquent members carried at the requests of local Societies. Other delinquent members were dropped from membership in accordance with the by-laws. Exhibit D presents a summary of unpaid dues and membership by Societies, as shown by the records of the Association.

Furniture and fixtures continue to be stated in the fixed amount of $1,000. Equipment purchases, rentals and repairs for the year in the sum of $2,556.06 were charged to expense in lieu of depreciation.

The records were carefully reviewed for liabilities at December 31, 1969 and it is believed that all current liabilities of substantial amount are included in the Balance Sheet. The by-laws state that the Association may furnish financial assistance to defray costs, not to exceed $300 on each individual malpractice suit. At year end, there were no requests for financial assistance.

Exhibitors have made advance payments of $4,655.00 for annual session exhibit space and these payments will be taken into income when earned in 1970.

The excess of assets over liabilities in the amount of $143,516.58 is shown in the Balance Sheet as a "Reserve for Future Activities."

General

During the year, payments were made to and for the following sponsored organizations:

Missouri State Medical Association Pension Fund	
Employees' Retirement Insurance Pension	$ 5,447.46
Employees' Pension Plan Contribution	8,888.72
Total	$14,336.18
Missouri State Medical Foundation—Insurance, audit, and printing	$ 2,143.66

Collections for the American Medical Association and the Missouri State Medical Foundation are made along with the Missouri State Medical Association annual dues. Following is a schedule of dues and assessments for each member:

	Active	*Junior*
Journal	$ 3.00	$ 3.00
Association General Fund	49.50	23.25
Foundation Assessment	10.00	5.00
Missouri State Medical Association Dues and Assessments	$ 62.50	$ 31.25
American Medical Association	70.00	70.00
Totals	$132.50	$101.25

Except for $950.83, the 1969 collections of $35,521.23 for the Missouri State Medical Foundation have been remitted along with $18.75 due from the year 1968. The $70 per member collected from the A.M.A. totalling $232,820.00 has been remitted except for $1,015.00.

Insurance policies were inspected and the following general insurance was in force at the close of the year:

Insurance on	*Type of Coverage*	*Amount*
Furniture and Fixtures	Fire and Extended Coverage (80% co-ins.)	$ 6,500
Employees	Workmen's Compensation	Statutory
Lessee's Liability	Bodily Injury	$50,000/$100,000
Treasurer	Fidelity Bond	$ 20,000
All Other Employees	Fidelity Bond	$ 10,000
Journal Publication	Publishers' Liability ($2,500 deductible)	$500,000
Journal Publication	Advertisers' Libel ($2,500 deductible)	$500,000
Automobiles of Executive Secretary and three assistants	Non-ownership—Bodily Injury	$100,000/$300,000
	Non-ownership—Property Damage	$ 25,000
Members and Auxiliary members on M.S.M.A. business	Travel Accident (away from home)	$25,000/$250,000

Subject to the comments thereon, the attached statements, in our opinion fairly present the financial position of the Missouri State Medical Association at December 31, 1969 and the result of the activities for the year then ended. The records for the year were kept in accordance with accepted principles of accounting applied on a basis consistent with that of the preceding year.

Yours very truly,
Lennertson & Co.
Certified Public Accountants

Exhibit A

Missouri State Medical Association Balance Sheet, December 31, 1969

Assets

Cash		
Mercantile Trust Company (Treasurer's Account)	$ 37,613.98	
Central Missouri Trust Company (Secretary's Account)	199.43	
Petty Cash Fund	25.00	$ 37,838.41

Investments at Cost (Exhibit C-2)		
U. S. Government Bonds	$ 60,504.68	
Corporate Bonds	15,000.00	
Common Stocks	35,637.54	
Total (Market Value $113,501.44)		111,142.22
Accounts Receivable		
Advertisers	$ 5,221.53	
Mercantile Trust Company Investment Custodian	1,190.98	6,412.51
Dues Receivable—Exhibit D (See Reserve—Contra)		1,843.80
Furniture and Fixtures (at stated value)		1,000.00
Advances for Travel Expenses		571.04
		$158,807.98

Liabilities

Accounts Payable		
Supplies and Expenses	$ 4,165.06	
Payroll Taxes	2,661.71	
Due Missouri State Medical Foundation	950.83	
Due American Medical Association	1,015.00	$ 8,792.60
Deferred Credit to Income		
Advance payments by Exhibitors for 1970 meeting		4,655.00
Reserve for Uncollected Dues		1,843.80
Reserve for Future Activities		
Balance January 1, 1969	$154,647.75	
Loss on Sale of Securities	(1,642.61)	
Excess of Expenses over Income for the year 1969—Exhibit B	(9,488.56)	143,516.58
		$158,807.98

Exhibit B

Missouri State Medical Association
Income Statement, for the Year 1969

Particulars	*General Activities*	*Journal Publication*	*Total*
Income			
Dues Received (including $3.00 per member annually for The Journal)	$175,553.49	$ 11,100.00	$186,653.49
Rentals—Annual Session Exhibit Space	11,475.00		11,475.00
Subscriptions to The Journal—Nonmembers		549.00	549.00
Advertising Space—The Journal		35,588.32	35,588.32
Investments—Interest and Dividends	8,482.14		8,482.14
Collection Fees on A.M.A. Dues	2,318.05		2,318.05
Collection Fees on Taxes Withheld	81.12		81.12
Total Income	$197,909.80	$ 47,237.32	$245,147.12
Expenses			
Salaries	$ 95,762.54	$ 11,571.26	$107,333.80
The Journal—Paper, Printing, etc.		39,484.56	39,484.56
Cash Discounts to Advertisers		221.36	221.36
Commission on Journal Advertising		5,174.01	5,174.01
Postage	2,810.19		2,810.19
Committee and Meeting Expenses	40,440.62		40,440.62
Custodian Fees—Investments	350.80		350.80
Dues and Subscriptions	573.70		573.70
Employees' Pension Plan Contributions	14,336.18		14,336.18
Equipment Purchases, Rentals and Repairs in Lieu of Depreciation	2,317.02	239.04	2,556.06
Insurance—Blue Cross	1,011.05	93.96	1,105.01
Insurance—General	381.50		381.50
Missouri State Medical Foundation	2,143.66		2,143.66
Office Rent and Light	6,652.60	994.06	7,646.66
Professional Fees	11,871.50	400.00	12,271.50
Stationery, Printing and Office Supplies	3,233.94		3,233.94
Student Awards	225.00		225.00
Taxes—Payroll	3,103.41	590.55	3,693.96
Taxes—Others	28.60		28.60
Telephone and Telegraph	5,674.42	140.31	5,814.73
Traveling Expenses—Executive Secretary and Assistants	4,809.84		4,809.84
Total Expenses	$195,726.57	$ 58,909.11	$254,635.68
Excess of *Expenses* or Income	$ 2,183.23	*$ 11,671.79*	*$ 9,488.56*

Exhibit C-1

Missouri State Medical Association
Statement of Committee and Meeting Expenses for the Year 1969

Annual Session		$14,137.54
Council Meetings and Councilors' Expenses		7,682.26
Delegates to A.M.A.		9,463.89
Public Service		4,819.14
Woman's Auxiliary		2,758.75
Committees:		
Alcoholism	$ 22.58	
Comprehensive Health	38.55	
Environmental Health	24.87	
Infant and Child Care	183.39	
Legislation	257.50	
Maternal Welfare	90.03	
Medical Care Costs—ad hoc	31.86	
Medical Economics	331.22	
Medical Education	106.59	
Medical Legal	17.70	
Medicine and Religion	60.00	
Mental Health	22.58	
Nursing and Paramedical	86.67	
Scientific and Postgraduate Work	114.20	
Tuberculosis	191.30	1,579.04
Total		$40,440.62

Exhibit C-2

Missouri State Medical Association
Statement of Investments December 31, 1969

Description	*Bonds at Par*	*Cost*
U. S. Treasury 2½% Bond 3/15/70-65	$10,000.00	$ 10,000.00
U. S. Treasury 2½% Bond 3/15/71-66	5,500.00	5,500.00
U. S. Treasury 4¾% Bond 5/15/72	10,000.00	10,004.68
U. S. Treasury 5¾% Bond 11/15/74	10,000.00	10,000.00
U. S. Treasury 8 % Bond 5/15/71	25,000.00	25,000.00
Pacific Gas & Electric 4½% Bond 6/1/90	5,000.00	5,000.00
C.I.T. Financial Corp. 8.9367% Note 1/23/70	10,000.00	10,000.00
American Home Products Corp. 50 shares		3,006.88
Burndy Corp. 124 shares		3,676.12
Central & Southwest Corp. 200 shares		6,345.62
Connecticut General Insurance Corp. 75 shares		3,025.24
Firestone Tire & Rubber Co. 70 shares		3,771.93
J. P. Morgan & Co., Inc. 122 shares		5,161.93
Johns-Manville Co. 200 shares		5,582.34
Standard Oil Co. of California 116 shares		5,067.48
Total		$111,142.22

Exhibit D-1

Missouri State Medical Association
Dues Receivable and Membership by Societies December 31, 1969

	MEMBERSHIP				
Societies	*Junior*	*Active*	*Honor*	*Total*	*Unpaid Dues*
Andrew		3		3	
Audrain	1	16	1	18	
Barton		5		5	
Boone	22	143	5	170	$ 62.50
Buchanan	3	75	13	91	
Butler-Wayne-Ripley		40	1	41	
Callaway		15	2	17	62.50
Cape Girardeau	2	49	3	54	
Carter-Shannon			1	1	
Chariton-Macon-Monroe-Randolph		19	4	23	
Clay	10	66	1	77	78.15
Clinton		5		5	
Cole	2	44	5	51	
Cooper		10		10	

Dallas-Hickory-Polk-Dade		9	2	11	
Dunklin		16	2	18	
Franklin-Gasconade-Warren		27		27	
Grand River	1	33	3	37	
Greene	14	163	8	185	62.50
Henry		7	2	9	
Howard		6		6	
Jackson	88	662	124	874	406.25
Jasper	5	59	5	69	109.40
Jefferson	5	14	2	21	
Johnson	1	13	1	15	
Lafayette-Ray	2	20	1	23	
Lewis-Clark-Scotland		2		2	
Marion-Ralls-Shelby		21	3	24	62.50
Mid-Missouri	4	24	2	30	
Miller		2		2	
Mineral Area	1	31	2	34	
Moniteau		3		3	
Montgomery		4		4	
Morgan	1	4		5	
North Central		8	1	9	
Northwest Mo.	1	15	1	17	62.50
Ozarks		36	6	42	125.00
Pemiscot		12	1	13	
Perry-Ste. Genevieve		8	2	10	
Pettis	3	28	1	32	125.00
Pike		9		9	62.50
Platte	2	5	1	8	31.25
St. Charles-Lincoln	2	42		44	62.50
St. Louis City	133	1,208	98	1,439	468.75
St. Louis County	22	388	46	456	
Saline		13	3	16	
Semo	4	24	2	30	62.50
South Central	1	16	2	19	
Webster		2		2	
West Central	6	27	6	39	
Totals	336	3,451	363	4,150	$1,843.80 (A)

(A) Delinquent dues of members at December 31, 1969 carried at the request of local Societies.

FINANCIAL STATEMENT FOR THE YEAR 1969

LENNERTSON & COMPANY
Certified Public Accountants
ST. LOUIS, MISSOURI 63105

January 27, 1970

Missouri State Medical Foundation
515 East High Street
Jefferson City, Mo. 65101

Gentlemen:

The records of the Missouri State Medical Foundation, a non-profit Missouri corporation, were reviewed for the year 1969. The Balance Sheet at December 31, 1969 is on a cash basis and the additions for the year are set forth in Exhibit A.

Recorded receipts for the year were traced in total into the bank account as deposits and paid checks were seen for the disbursements. A direct confirmation was received from the depositary in verification of the cash balances on deposit.

A summary of the loans to medical students follows:

Loans Receivable January 1, 1969	$263,345.10
Loans made during the year	41,070.00
Total	$304,415.10
Less Loan Repayments	8,843.11
Loans Receivable December 31, 1969	$295,571.99

Individual records of loans were reviewed and student loan contracts were inspected. The Foundation carried insurance on the lives of students to assure repayment of the loans in the event of death. One loan in the amount of $500.00 plus accrued interest of $7.50 was paid by the insurance company. Interest income on loans is recorded on a cash basis and the amount received in 1969 was $1,571.67. Accrued interest on outstanding loans at December 31, 1969 amounted to $21,895.71 and is not included in the loan balances in Exhibit A.

Exhibit A

MISSOURI STATE MEDICAL FOUNDATION

Balance Sheet (Cash Basis), December 31, 1969

Assets

Cash in Checking Account	$ 27,322.70
Savings Account	5,292.47
Certificate of Deposit due Jan. 6, 1970	19,083.51
Loans Receivable from Medical Students	295,571.99
Total Assets	$347,270.67

Fund Reserve

Balance January 1, 1969		$307,310.08
Cash Additions for the Year 1969		
Interest on Loans	$ 1,571.67	
Interest on Bank Deposits	1,149.27	
Contributions (see below)	2,675.50	
Assessments of Members—Active $10.00; Junior $5.00	34,564.15	
Total for year 1969		39,960.59
Total Reserve		$347,270.67

Contributions

Audrain County Medical Society, Mexico, Mo.	$ 170.00
Boonville Medical Group, Boonville, Mo.	100.00
Albert D. Cross, M.D., Nevada, Mo.	100.00
Max S. Franklin, M.D., St. Louis, Mo.	100.00
Samuel K. Lewis, M.D., Elmhurst, Ill.	200.00
Long's Drug Store, Boonville, Mo.	100.00
Doyle C. McGraw, M.D., Bolivar, Mo.	100.00
St. Charles-Lincoln Medical Society, St. Charles, Mo.	500.00
South Central Counties Medical Society	100.00
West Central Missouri Medical Society, Nevada, Mo.	100.00
Paul R. Whitener, M.D., St. Louis, Mo.	250.00
Woman's Auxiliary, Jackson County Medical Society, Kansas City, Mo.	150.00
Woman's Auxiliary to M.S.M.A., Jefferson City, Mo.	100.00
Woman's Auxiliary, Boone County, Columbia, Mo.	200.00
Sub-total	$2,270.00
Contributions under $100 each	405.50
Total Contributions	$2,675.50

Interest received on the savings account and the certificate of deposit amounted to $1,149.27. The certificate of deposit due January 6, 1970 was renewed for six months and interest of $477.08 was received.

The Missouri State Medical Association paid expenses for the Foundation as follows:

State Registration Fee	$ 1.00
Professional Fees	400.00
Insurance Premium	1,713.82
Printing	28.84
Total	$2,143.66

These amounts have not been recorded as receipts and disbursements on the records of the Foundation.

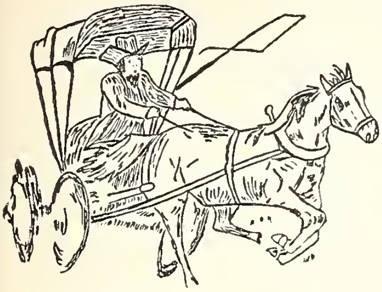
U. S. Treasury Department form 990A has been prepared for the year 1969 and is due for filing on May 15, 1970.

No opinion is expressed on the attached statement as it is on a cash basis and student loan balances were not verified by direct confirmation.

Yours very truly,
Lennertson & Co.
Certified Public Accountants

LEO H. POLLOCK, M.D.

Missouri Medicine in Review



FORTY YEARS AGO

Old Man Winter played havoc with the regularity of medical society meeting during December and January and, if February maintains even its ordinary behavior, more meetings will be cancelled or attendance greatly reduced. The bad weather conditions have not been confined to one or two isolated sections. The whole state has suffered from exceedingly heavy snowfall, subzero temperatures and, in some sections, floods have added to the discomfort of deep snows and extreme cold. The Postgraduate Committee had arranged to send speakers to several of the meetings which were postponed due to bad weather conditions.

The exchange of house physicians between Barnes Hospital, St. Louis and the East London Hospital for Children in London, England has been arranged for 1930. This is the second year in which the exchange of house physicians between these institutions has been in operation. Dr. Findlay Ford of Glasgow, Scotland has arrived in St. Louis and has assumed the position of assistant physician at Barnes Hospital. Dr. Austin J. Cordonnier of Barnes Hospital has departed for London to take up research work in the East London Hospital for Children.

A $1 million hospital in St. Louis for patients of moderate means, to be administered by the School of Medicine of St. Louis University and the Sisters of St. Mary's, was provided for by the will of the late Firmin Desloge, according to an announcement by Dean Alphonse M. Schwitalla of the School of Medicine.

February 11 marked the 25th anniversary of the Council on Pharmacy and Chemistry of the American Medical Association. For a quarter of a century, this group has been the leader in stabilizing the status of medicinal drugs which are not included in the *United States Pharmacopeia.*

TWENTY-FIVE YEARS AGO

The 1945 Annual Session of the Missouri State Medical Association, which was scheduled for April 22-24 in St. Louis, has been cancelled in accordance with the ruling of the Office of Defense Transportation. The cancellation includes the House of Delegates.

Lt. Cdr. Marcel L. Mooney, Kansas City, has been awarded the Bronze Star with a citation which reads: "He distinguished himself by heroic and meritorious conduct in action with the enemy during a series of air raids on Oct. 27, 1944 on ships at anchor near his ship. He boarded a burning gasoline ship as a member of a fire and rescue party. After ascertaining that casualties were taken care of, he remained on deck and assisted in fighting the blazing gasoline fire. During this period, which was at night, the ship was a natural target for the expected air raids. His actions throughout distinguished him among those performing duties of the same character."

Lt. Col. George C. Bess, St. Louis, has been awarded the second Distinguished Service Badge. He was former chief surgeon of a heavy bomber group, but is now serving as Chief Medical Inspector of the 15th Army Air Force in Italy.—Capt. Edward N. Zinschlag, Glendale, was among volunteers who were sent by glider to the relief of troops at Bastogne, Belgium.

Major John A. Growdon, Kansas City, was awarded the bronze star with a citation by Lt. Gen. Courtney Hodges. He performed operations two hours after he waded ashore on June 7, 1944 in France. The citation reads, "He has administered his duties in an outstanding manner from D-Day to November 21 in France, Belgium and Holland."

TEN YEARS AGO

The 125th annual meeting of the St. Louis Medical Society on January 5 was another memorable occasion. Dr. Robert Bassett, retiring President, turned the gavel over to the new President, Dr. Paul F. Max. Other officers installed included Drs. Don C. Weir, President-Elect; Leo J. Hartnett, Vice-President; Charles S. Sherwin, Secretary; Roy V. Boedeker, John

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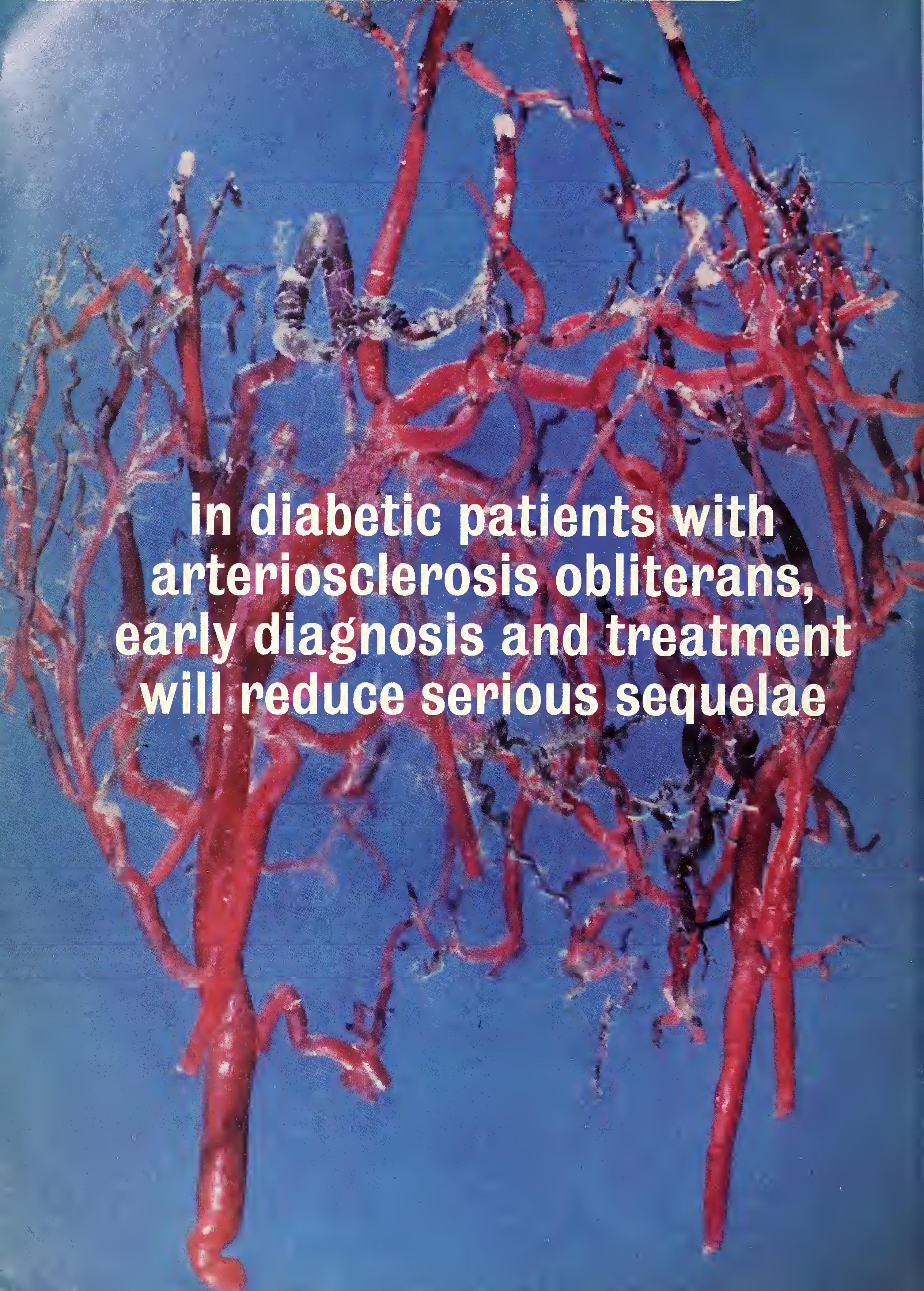
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References: (1) Stein, I.D.: Angiology *15*:1 (April) 1964. (2) New Drugs–Evaluated by the A.M.A. Council on Drugs, Chicago, American Medical Association, 1967, pp. 295-297. (3) Samuels, S. S., and Shaftel, H. E.: J. Indiana M. A. *54*:1021-1023 (July) 1961. (4) Kaindl, F.; Pärtan, J., and Polsterer, P.: Wien.klin.Wchnschr. 68:186-191 (March 16) 1956. (5) Kaindl, F.; Samuels, S. S.; Selman, D., and Shaftel, H.: Angiology *10*:185-192 (Aug.) 1959. (6) Myers, K. A.: Modern Treatment *4*:370-383 (March) 1967. (7) Gillespie, J. A.: Angiology *17*:280-288 (May) 1966. (8) Smit, Arne, F., *et al.*: Nordisk Medicin *20*:1260, 1959. (9) Samuels, S. S., and Shaftel, H. E.: JAMA *171*:142-145 (Sept. 12) 1959. (10) Frieh, C., and Olivier, L.: Lyon Med. *91*:891-896 (May 24) 1959. (11) Weghaupt, Von K.: Wien.klin.Wchnschr. 69:31-32 (Jan. 11) 1957. (12) Clarkson, I. S., and LePere, D. M.: Angiology *11*:190-192 (June) 1960.

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Microphoto of occluded vessels in gangrenous area of a first toe amputated because of severe arteriosclerosis obliterans. Cast was made by injecting acrylic plastic into the vessels. *Used with permission. Courtesy of Margaret C. Conrad, Ph.D., Department of Physiology, Bowman-Gray School of Medicine, Wake Forest College, Winston-Salem, N. C.*

6806

J. Hammond, James M. Macnish, Richard W. Yore, Councilors (three-year terms); and Dr. Charles O. Metz (one-year term).

A dinner meeting of the Marion-Ralls-Shelby County Medical Society was held at the Mark Twain Hotel in Hannibal on January 19. Twenty-five doctors were present to hear a most interesting and stimulating discussion by Philip Hitchcock, M.D., associate professor of anesthesiology at the University of Missouri School of Medicine.

Memorial services for Dr. Leo Loeb, internationally-noted professor emeritus of pathology at the Washington University School of Medicine, were held on January 24 in Graham Memorial Chapel on the University campus. Dr. Loeb died of infirmities of age on Dec. 28, 1959 in his home in Clayton. He was 90 years old.

The 50th anniversary of the publication of the results of a two-year study of American medical schools by Abraham Flexner, Sc.D., was observed during the Medical Education Congress held in Chicago on February 7-9. Dr. Flexner's study was made in 1910 at the request of the AMA's Council on Medical Education and the Association of American Medical Colleges. The report is credited with showing deficiencies in many U. S. medical schools then in existence, closing many and bringing about improvements in others.

CLASSIFIED ADS

GENERALIST—For a group in St. Louis County. Privileges at four hospitals with no OB. Free time available. Excellent salary leading to early partnership. All the cultural advantages of St. Louis and medical educational facilities of two medical schools available. Contact Box 358, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

POSITIONS AVAILABLE July 1, 1970—In fully approved Psychiatric Residency, also in Child Psychiatry; affiliated with university and mental health clinics in communities. Excellent supervision offered in a broad program with controlled number of patients in therapy. Also extensive training programs in other disciplines in same hospital, about 50 miles from downtown Los Angeles and about three miles from ocean beaches. Applicants who are foreign medical school graduates must have unrestricted license to practice in California. All others must be eligible for examination for California Licensure. Write to Norman C. Mace, M.D., Camarillo State Hospital, Camarillo, Calif. 93010.

FAMILY MEDICINE—Department expansion is imperative, so the Medical Arts Clinic is looking for general practitioners, internists or pediatricians who want to practice improved medicine in an excellent community hospital environment in one of Missouri's nicest small towns located in the scenic Ozark foothills one hour south of St. Louis. High salary. Early partnership. Please contact C. W. Chastain, M.D., Medical Arts Clinic, Farmington, Missouri 63640.

ELEVEN ROOM OFFICE—For rent in large Missouri city. Across from large hospital. Completely equipped. Option to buy office, general and surgical equipment. Write to Box 353, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

ASSOCIATE WANTED—Attractive opening in St. Louis for young, board eligible urologist. Senior partner is retiring. Contact Box 359, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

INTERNIST AND GENERAL PRACTITIONER—To associate with group of seven physicians representing the major specialties. Top salary one year, then partnership. Forty-six bed general hospital which is now building a 21-bed addition and an adjoining clinic building, all owned by the group. Good recreation opportunities and time off. Growing town of 15,000 with excellent schools. Contact J. Will Fleming, Jr., M.D., Woodland Hospital and Clinic, Moberly, Mo. 65270.

UROLOGIST—Seeking a board eligible or board certified urologist to join an active urological practice. University affiliation available. Contact E. M. Cannon, M.D., 607 N. Grand Blvd., St. Louis, Mo. 63103.

INTERNIST AND GENERAL PRACTITIONER—To associate with group of seven physicians representing the major specialties. Top salary two years, then partnership. Two accredited hospitals. Good recreation opportunities and time off. Historic town of 20,000 population on Mississippi River. Contact Box 357, Missouri State Medical Association, 515 East High St., Jefferson City, Mo. 65101.

WANTED—General Practitioner for practice in Missouri town of 11,000. Office furnished and equipped with x-ray and laboratory (certified laboratory and x-ray technician). Physician would consider selling, renting or possible partnership with an interested physician. Two general hospitals and two nursing homes available. Thirty miles from Kansas City in Clay County. Contact Box 362 Missouri State Medical Association, 515 E. High St., Jefferson City, Mo. 65101.

TIRED OF SOLO RAT-RACE—Need assistant or associate in practice, primarily surgical, some general practice. Financial arrangements open. W. Russell Smith, M.D., F.A.C.S., Carthage, Mo. 64836.

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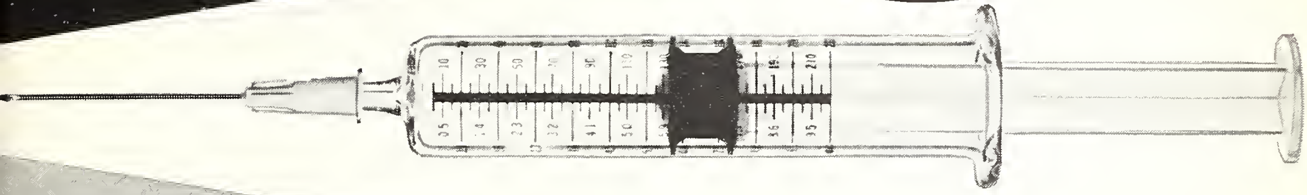

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Missouri Medicine

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MSMA News

Big 112th Annual Session To Open On Thursday, April 2

All is in readiness for the 112th Annual Session of the Missouri State Medical Association which will be held April 2-5 at the Muehlebach Hotel in Kansas City.

The four-day meeting opens with a 1:30 P.M. session of the House of Delegates on Thursday afternoon, April 2 and concludes with a 7:30 A.M. breakfast session of the House of Delegates on Sunday morning. Another meeting of the House is scheduled for 4 P.M. on Friday.

A total of 16 resolutions have already been introduced for consideration by the House and others are expected to be introduced on the floor of the House during the Annual Session.

Reference Committee sessions are scheduled immediately after the first session of the House of Delegates on Thursday afternoon and later as needed. Any member of the Missouri State Medical Association may attend Reference Committee sessions and speak on any subjects before the Committee.

A special Reference Committee has been established this year for the purpose of studying the American Medical Association's Report of the Committee on Planning and Development (The Himler Committee).

Joseph L. Fisher, M.D., St. Joseph radiologist, will be installed as President of the Association at a banquet on Saturday night. He succeeds Doyle C. McCraw, M.D., Bolivar general practitioner.

The banquet speaker on Saturday night will be Calvin Johnson, a former member of Congress and now Consultant on Public Affairs for the American Trucking Association.

Also during the banquet, past presidents of the Association will be honored as will physicians who have been in the practice of medicine for 50 years.

Two general luncheons are scheduled during the Annual Session, on Friday and Saturday. The Friday luncheon speaker will be Ewing Kauffman of Kansas City, owner of the Kansas City Royals baseball team in the American League. The Saturday luncheon speaker will be Missouri Lieutenant Governor William Morris, also of Kansas City.

Among the organizations which will hold special events during the 1970 Annual Session are The MSMA Maternal Welfare Committee, the Missouri University Medical Alumni group, the Missouri Academy of Psychiatry, the Federation of Missouri Urologists, the Missouri State Surgical Society, the Missouri Obstetrical and Gynecological Society, the Missouri Ophthalmological Society, the St. Louis University Medical Alumni, and the Washington University Medical Alumni.

The Scientific portion of the Annual Session opens at 9 A.M. on Friday and concludes at 4 P.M. on Saturday.

There will be at least two programs underway in each scheduled period and in some cases three programs will be held concurrently.

Programs include Friday: 9 A.M. — Medical Malpractice sponsored by the MSMA Committee on Medical-Legal Affairs; and Arthritis Review sponsored by the St. Louis Rheumatism Society. 11 A.M.—How is Your Emergency Room? sponsored by the MSMA Committee on Disaster Medical Care and National Defense; Endotoxic Shock sponsored by the MSMA Committee on Maternal Welfare; and Emotional Problems of Adolescents sponsored by the Missouri Academy of Psychiatry.

2 P.M.—Comprehensive Care of the Indigent; The General Practitioner in Industrial Medicine sponsored by the MSMA Committee on

(Continued on Back of Page)

Malpractice Program At Annual Meet

Due to the great interest today in the problems of medical malpractice the Missouri State Medical Association has planned a one hour and a half session on the subject during the 112th Annual Session in Kansas City, April 2-5 at the Muehlebach Hotel.

The session, entitled "Medical Malpractice" will be held from 9 AM until 10:30 AM on Friday morning, April 3.

The session will have as its moderator Daniel L. Yancey, M.D., Springfield, chairman of the MSMA Committee on Medical-Legal Affairs, sponsor of the Program.

Participants include Attorney Max Wildman, a member of the Chicago law firm of Wildman. Harrold, Allen & Dix; Attorney James W. Jeans, a Professor of Law at the University of Missouri-Kansas City School of Law; Attorney Norris H. Allen, a member of the St. Louis law firm of Anderson, Gilbert, Wolfort, Allen & Bierman; Walter G. Dithmer, Chicago, Midwest Manager for the Insurance Information Institute; and Hector W. Benoit, M.D., Kansas City, a past president of the Missouri State Medical Association and a delegate to the American Medical Association from MSMA.

AMA Refutes Claims About Physician Fees

The American Medical Association's Health Service Division, after a careful analysis of the Senate Finance Committee Staff Report on Medicare and Medicaid costs, points out that physicians were not responsible for the major portion of the increased cost of the programs.

In making this statement, the AMA emphasized that the percentage distribution of the increase in expenditures from fiscal 1968 to fiscal 1969 shows that physicians were responsible for only 14.9 per cent of the increase. The increase in payments to physicians from fiscal 1968 to fiscal 1969 was only 2.8 per cent of the total federal expenditure for the two programs in fiscal 1969.

The AMA Staff pointed out that it is difficult to sort out price and utilization increases from the expenditure data. However, according to the Consumer Price Index, physicians fees increased 7.3 per cent during fiscal 1969. This means that of the total increase of $311 million to physicians in fiscal 1969, $123 million (39.5 per cent) was due to price increase and $188 million (60.5 per cent) was due to increased utilization of physicians services. On this basis, only 1.1 per cent of the total federal expenditures for the programs in fiscal 1969 can be attributed to increased physicians' fees.

Don't Miss
The 112th Annual
MSMA MEETING
April 2-5, 1970
Kansas City

Internal Revenue Service Reaffirms Its Ruling On Professional Corporations

The Internal Revenue Service, in a new pronouncement issued on March 2, has reaffirmed an earlier ruling on the tax status of professional corporations.

The IRS said it will treat "organizations of doctors, lawyers, and other professional people organized under state professional association acts as corporations for tax purposes."

A similar announcement was made last August after two decisions by separate U.S. court of appeals holding that groups of physicians organized under state laws were classifiable as corporations for federal tax purposes.

Forty-seven states including Missouri have authorized the creation of professional associations for lawyers, physicians, dentists and others as corporations.

Vaccine Against Rubella Given U.S. Licensure

Smith Kline & French Laboratories has announced the licensing in the United States of its 'Cendevax' vaccine against rubella (German measles).

The license was granted by the U.S. Secretary of Health, Education and Welfare to SK&F's Belgian subsidiary, Recherche et Industrie Therapeutiquest (R.I.T.) which manufactures the vaccine

The vaccine is manufactured at new facilities capable of producing about 35 million doses per year.

Annual Session To Open (Cont.)

Industrial health; General Surgical Session sponsored by the Missouri State Surgical Society.

The Saturday program: 9 A.M.—Changes in Medical Education sponsored by the MSMA Committee on Medical Education and Hospitals; Medical Assistance for the Failing Heart sponsored by the Missouri Heart Association; and The Role of Transplantation in Oncology sponsored by the Missouri Division of the American Cancer Society. 11 A.M. —Many Faces of Depression; Resuscitation and Transportation of the Injured sponsored by the Missouri Chapter of the American College of Surgeons; and Symposium on Chronic Renal Disease.

2:30 P.M.—Discussion of Missouri Abortion Law sponsored by the Missouri Obstetrical and Gynecological Society and the MSMA Committee on Medicine and Religion; and Panel on Iatrogenic Diseases.

More than 50 technical exhibitors have contracted for space during the 1970 Annual Session and their booths will feature helpful ideas and new information for members of the Missouri State Medical Association in attendance at the Annual Session.

There is no registration charge for attendance at Annual Sessions of the Missouri State Medical Association. Registration opens at 11 A.M. on Thursday, April 2 and continues throughout the Annual Session.

The annual meeting of the Woman's Auxiliary to the MSMA will be held at the Muehlebach concurrently with the physician's meeting. Mrs. James A. Reid of Marshall is President of the Auxiliary; Mrs. William M. Walker of Springfield is President-Elect.

Also to be held simultaneously with the MSMA Annual Session is the 1970 Annual Conference of the Missouri Society of Medical Technologists.

Special Article

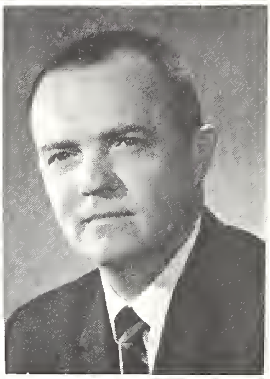
The University of Missouri-Columbia Medical Center: A Resource for All Missourians

WILLIAM D. MAYER, M.D., ***Dean and Director***

This year, as opposed to the custom of the past, instead of providing a summary of the events and changes of the previous year within the Medical Center, I have decided to try to accomplish two other goals. First, I will describe the structure and functions of the Medical Center as it now exists and, second, I will mention one of our critical problems for the future if we are to continue to meet the demands placed upon us. I hope the former will provide you with an updated overview of what we are and what we are doing. The latter concerns my desire to acquaint you with one example of the implications to the Medical Center of the state's budget crisis.

What Is the University of Missouri-Columbia Medical Center?

The Medical Center as a medical center (as opposed to simply a School of Medicine) dates back to 1956. Although a School of Medicine—in fact, the oldest one west of the Mississippi River—preceded the development of the Medical Center, it was a two-year school with the students subsequently transferring to other university medical centers for completion of their medical school, internship and residency training. Thus, the Medical Center as it now exists is only 13 years old. In 1956, the University Hospital, which was planned for 440 beds, and the connecting four-story basic science building were completed. Since that time, there have been several additions to the Medical Center complex.



Dr. Mayer

Fig. 1 is a schematic aerial view of the Medical Center which demonstrates in the foreground the new 460-bed Veterans Administration Hospital now under construction between the existing Medical Center and the M.U. Stadium and immediately across Route 740 from the new field house which is also under construction. This Veterans Administration Hospital, which will open in 1971, is connected to the Medical Center by a tunnel under Stadium Road and, hence, will allow all-weather movement between the two buildings. It will be an integral part of the Medical Center operation. For example, we intend to have only one department of Surgery, Pathology, Radiology, Medicine, Psychiatry and others serving the Medical Center and the VA Hospital. All professional staff in the hospital will have appointments in the School of Medicine and, thus, must be acceptable both to the VA and the School of Medicine. Indeed, the Veterans Administration built the hospital in this particular location so this kind of intimate relationship could exist.

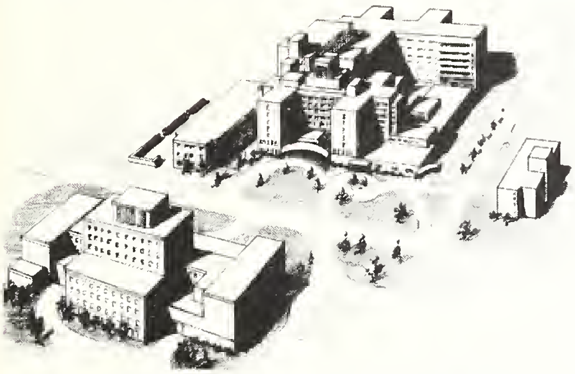


Fig. 1 University of Missouri-Columbia Medical Center Complex and Veterans Administration Hospital.

In the left foreground of the main Medical Center complex is the Mid-Missouri Mental Health Center, a 120-bed, acute psychiatric care unit built by the Division of Mental Diseases of Missouri. Again, as in the instance of the VA Hospital, it was built immediately adjacent

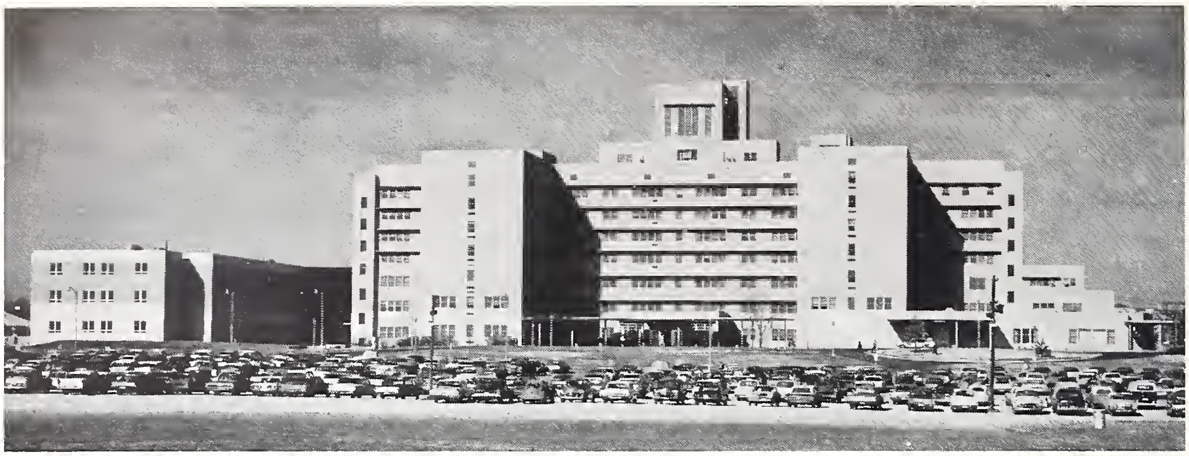


Fig. 2 University Hospital in 1967 (prior to construction of VA Hospital).

to the Medical Center so that cooperative working relationships could occur. In fact, the only inpatient psychiatric beds in the Medical Center complex are in that facility, whose physicians also hold appointments on the Medical School faculty.

Also, in the foreground is the main University Hospital, which in conjunction with McHaney Hall, the structure on the right, currently has a total of 480 beds. The low structure along the right of the main complex is our current one-story, out-patient clinic building. In the rear is the basic science building which contains our teaching laboratories and classrooms for the first- and second-year medical school classes as well as the offices and research laboratories of the basic science faculty of the Medical School and the School of Nursing. The wing in the middle connects the University Hospital with the basic science building and contains the offices and research laboratories of our clinical faculty in the Departments of Medicine, Pediatrics, Surgery, Obstetrics and Gynecology, Community Health and Medical Practice, Ophthalmology, Pathology and Radiology.

Fig. 2 shows a front view of the University Hospital prior to the construction of the VA Hospital which is now located on the parking lot shown in the foreground of this picture.

Fig. 3 is a drawing of the VA Hospital as it will appear upon completion. This rendering is from the front of the University Hospital looking to the south. As you will note, the two hospitals face each other.

Fig. 4 is a sketch of the arrangement of the Medical Center which shows the interrelationships of the current structures, including those under construction and those planned for the future.

This, then, is the University Medical Center as it now exists and as we envision it within the next two years. In addition to the educational facilities, we will have more than 1,000 beds in the complex operational in that period of time.

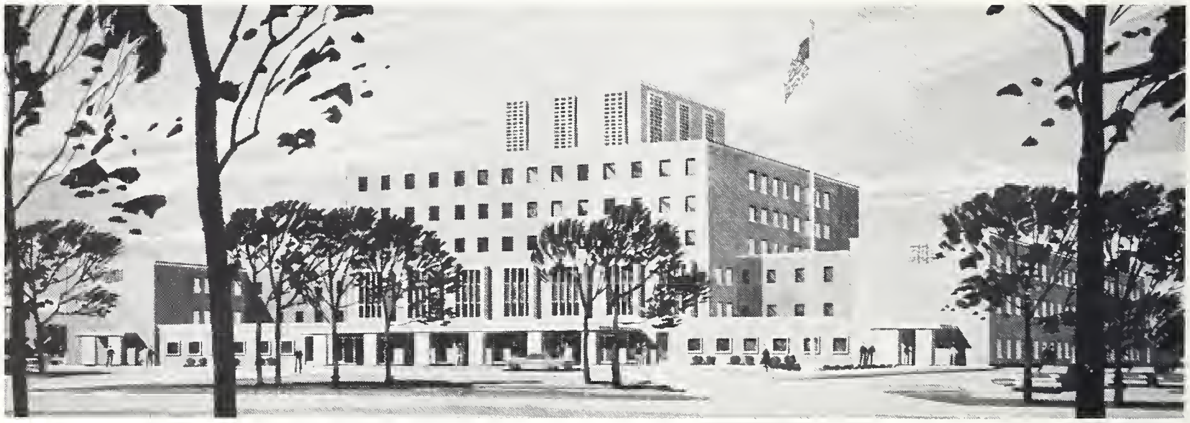


Fig. 3 Architect's drawing of Veterans Administration Hospital.

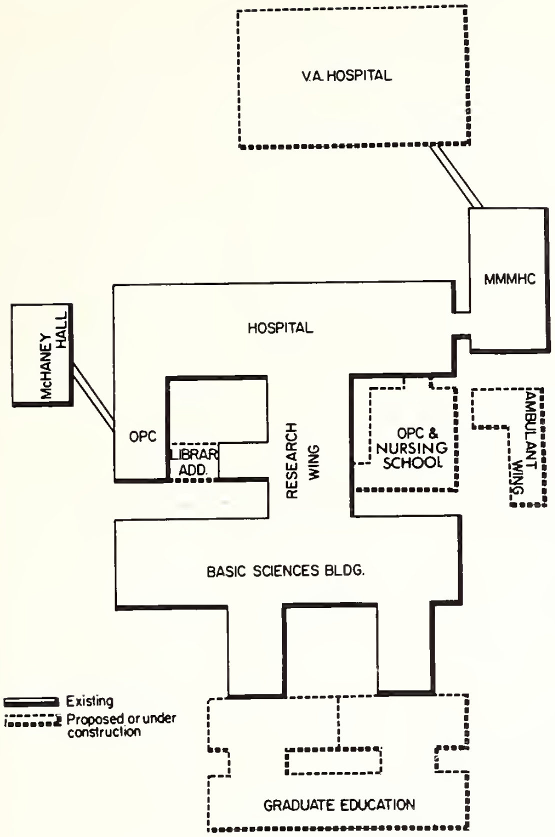


Fig. 4 Existing and proposed components of the University Medical Center.

Why Is It a Resource for All Missourians?

Thus far, I have used the term Medical Center or University Medical Center rather than School of Medicine. I have done this purposely because one of the most popular misconceptions about our function is that we are only a School of Medicine. Although the production of additional physicians for the state of Missouri is an important (indeed, perhaps our most important) function, it is far from our only one in attempting to meet our share of the health care needs of the state. In academic medicine, we talk about our trilogy of functions as (1) education, (2) research and (3) patient care. I would like now to briefly outline those functions because I think then you can understand more clearly the magnitude of the activities which are carried out in the physical facilities which I have mentioned above.

Educational Function

First and foremost in our educational function is our responsibility for the education of medical students. As of this date, we are the only state-supported institution in Missouri which is granting the M.D. degree. I am sure most of you are aware that there are current plans for the development of a second state-supported medical school in Kansas City under the auspices of the University of Missouri-Kansas City. This, of course, has not yet come into being, although we in Columbia are looking forward to its development.

The medical student body of our School of Medicine has increased in the past five years from 319 students in 1964 to 367 students as we started the academic year last fall. This increase in student body was made possible through the completion of a new educational addition which was supported jointly by state and federal funds. This addition permitted an increase in enrollment of first-year students from 85 to 100. Also, the number of applicants to our medical school has markedly increased from 505 total applicants in 1964 to 1,072 in 1969. Every indication is that there will be further increases: applications for the class entering in 1970 already have exceeded 1,500. The academic credentials of the students also has risen markedly. The college grade point average of admitted students in 1964 was 2.9 on a 4.0 system. In this current first-year class, this had risen to a grade point average of 3.2. The magnitude of this change is further emphasized by the fact that the average grade point average of all the applicants who were *not* accepted this last year was 2.8, almost the same level as the accepted class just five years ago.

In the total student body of 367 students, there are only 24 or approximately 8% who are from out of state. The remainder, 92%, are Missourians. We have felt that it is important in terms of the breadth of the student body to maintain at least a small percentage of students with out-of-state heritage.

The medical student body, however, is only one of our major functions. I would like to comment on some others with which you might not be as familiar.

Another important educational function is graduate medical education. We currently are accredited and carry on not only internship programs but residency programs in 20 specialty areas of medicine ranging from anesthesiology to urology. This year, there are 130 interns and residents continuing their education beyond the M.D. degree in our internship and residency programs. The majority of these individuals will practice their specialty in the state of Missouri.

We have continued to carry out active continuing medical educational programs for health professionals throughout the state and, during this past year, have had educational contacts with physicians, nurses and other health professionals numbering more than 11,000.

We have approximately 350 nursing students enrolled in educational programs within the Medical Center. We have 181 students enrolled in baccalaureate programs in the other allied health areas, including medical technology, physical therapy, inhalation therapy, occupational therapy, radiologic technology, dietetics and others.

We are carrying out graduate programs leading to the master's and Ph.D. degree in each of our basic sciences departments as well as in public health and health services management. During this past year, 208 students were enrolled in these kinds of programs.

And more than 1,000 undergraduate students from other schools and colleges on the campus take various courses taught by the faculty of the School of Medicine.

Finally, we provide other active educational programs for individuals involved in health care short of the degree level, including our licensed practical nurse program and many internal, inservice training programs for operating room technicians, radiologic technicians and others.

Thus, although many of the people in the state think of us only in terms of the School of Medicine, you can see from the above listing that we are actively involved in the education of far more health professionals other than doctors.

BIOMEDICAL RESEARCH

A second major function of the medical center is biomedical research. Since World War II, there have been significant societal demands for expansion of biomedical research capabilities of this nation. Our society has come to understand that the health care of our future is totally dependent upon the basic scientific advances which occur today. As opposed to the space industry, in which the major advances in research have been carried out by private industry, the biomedical research thrust has been undertaken primarily by the universities—and within the universities, primarily by the university medical centers of this country. Some indication of the magnitude of this expansion is revealed by the fact that in 1947 the annual budget of the National Institutes of Health (the major source of funds for this research endeavor) was $8.3 million. During this past year, that investment was $1.4 billion. That the University of Missouri-Columbia Medical Center, as it has grown in depth, has actively participated in research is graphically demonstrated in Fig. 5, which shows that, in this past decade, our sponsored research activity (from outside funds) has grown from $100,000 in 1959-1960 to approximately $7 million in 1968-1969. Unfortunately, space will not permit discussion of many of the exciting things that are going on in the research area at the Medical Center. Let me only say that these activities are not only vital to the future health care of the nation and Missouri, but they also serve as a very useful mechanism for keeping our faculty and, most importantly, our students involved in the very dramatic changes that are happening daily in biomedical sciences.

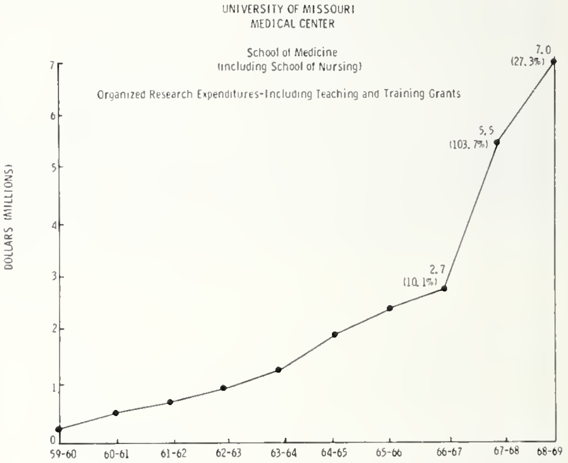


Fig. 5 Research expenditures.

PATIENT CARE FUNCTIONS

The third major function in which we serve as a significant resource to the state is, obviously, patient care. During this past year, the Medical Center had almost 90,000 outpatient visits. In addition, almost 10,000 patients were admitted to the University Hospital, constituting a total of approximately 115,000 days of patient care. These patients came to us not only from Mid-Missouri but from every single county in the state from McDonald and Dunklin counties in the southwest and southeast, respectively, to Atchison and Clark counties in the northwest and northeast, and all points in between.

THE FUTURE

What, then, do we see in the future for the University of Missouri-Columbia Medical Cen-

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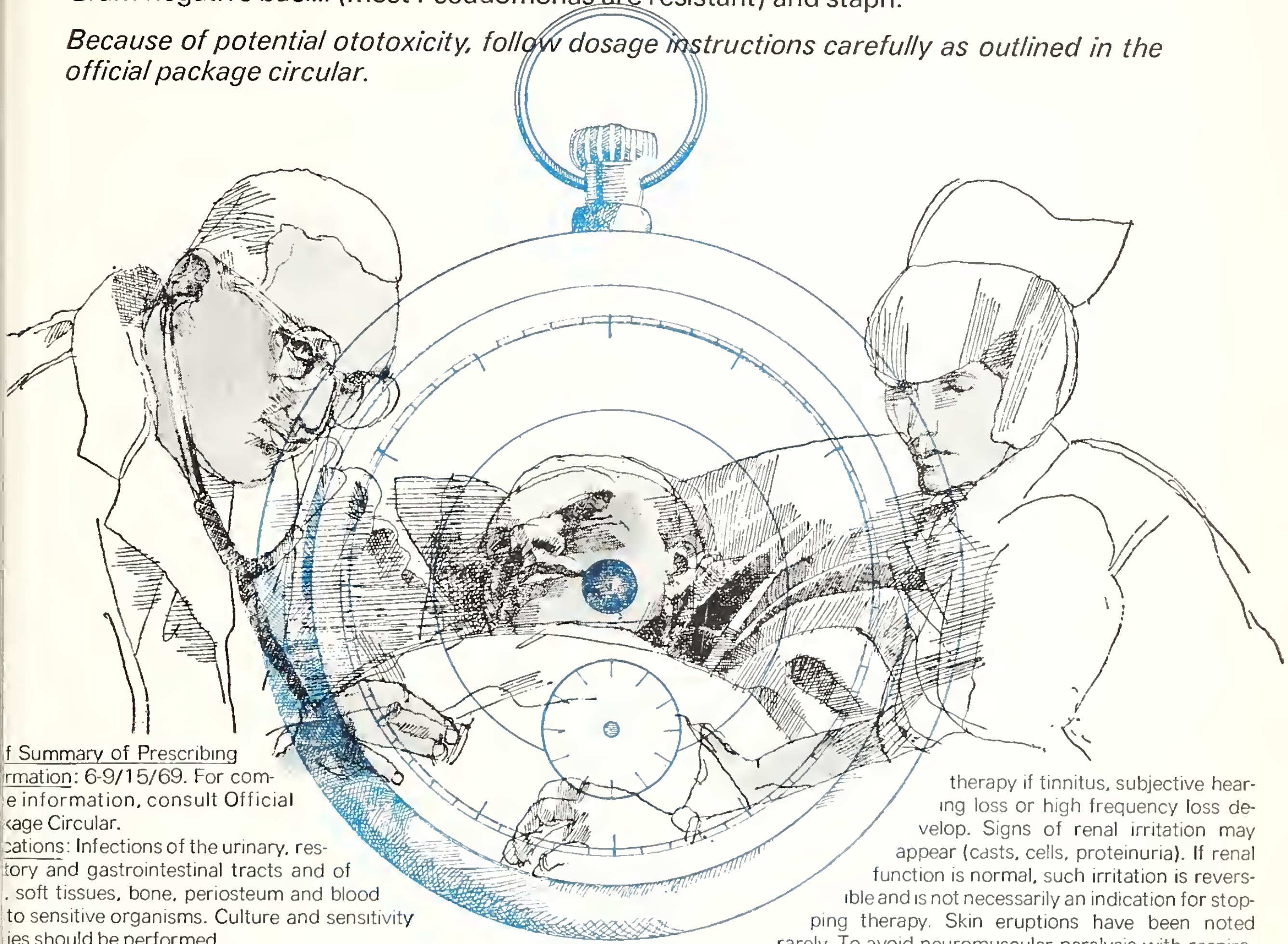

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amycin which may prove ototoxic. Assess renal function periodi-
, both before and during therapy. Renal dysfunction or pre-renal
emia sharply increase the risk of ototoxicity and permanent deaf-
. In such cases decrease the size and frequency of doses. Discontinue
amycin and check hearing if azotemia increases. In older patients
patients receiving a total dose in excess of 15 Grams, watch care-
for signs of ototoxicity.
autions: If mycotic or bacterial superinfection occurs, discontinue
amycin and initiate appropriate therapy. Cumulative ototoxic effects
be produced by concurrent or consecutive use of other ototoxic
js. High doses may cause irritation at injection sites. The drug *should*
be physically mixed with other antimicrobials.
erse Reactions: Severe irreversible hearing loss may occur. Stop therapy if tinnitus, subjective hearing loss or high frequency loss develop. Signs of renal irritation may appear (casts, cells, proteinuria). If renal function is normal, such irritation is reversible and is not necessarily an indication for stopping therapy. Skin eruptions have been noted rarely. To avoid neuromuscular paralysis with respiratory depression, postpone intraperitoneal instillation in postoperative patients until recovery from anesthesia and muscle relaxants is complete.

Dosage and Administration: The usual dose is 7.5 mg./Kg./12 hours I.M. The average adult dose is 1 Gram daily and should not exceed 1.5 Gram even in the heaviest patients. Uncomplicated infections due to sensitive organisms should respond in 24 to 48 hours. If no response occurs in 5 days, stop therapy and recheck the bacterial sensitivities. Hydrate patients well to minimize renal irritation. Inject deeply into the upper outer quadrant of the gluteal muscle. Discard partially used vials after 48 hours.

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ter? There is no doubt that the pressures of society for health care will continue to increase. This is true in Missouri and throughout the entire nation. In the minds of many, health care has become an inalienable right. The past few years have seen the coming not only of Medicare as a mechanism of payment for health care for the elderly, but Medicaid for the indigent. I feel that this is only the beginning. There is little doubt in my mind that the decade of the '70s will bring some form of national health insurance which will cover virtually everyone in the entire nation. The problem, of course, is that the health care "industry" (if I may use that term) is not prepared to meet the onslaught. There are not only deficiencies in facilities as a physical focus for the provision of these services but, more importantly, a marked deficiency in health manpower in order to provide them. The major sources of that health manpower (and, indeed, in some of the health professions the *only* source) are the university medical centers of this country. There are phenomenal pressures for expansion currently; these will increase markedly in the next decade. I am frankly concerned that, in spite of the significant advances we have already made, unless Missouri moves more rapidly than it already has in the production of needed manpower and construction of facilities in which to train these people, we will have a crisis in health care on our hands in the not-too-distant future. Let me cite as one example the request for the Outpatient Clinic-School of Nursing Building at the University of Missouri-Columbia Medical Center which has been before the State Legislature for the past two years and will be before the legislators again in their next session.

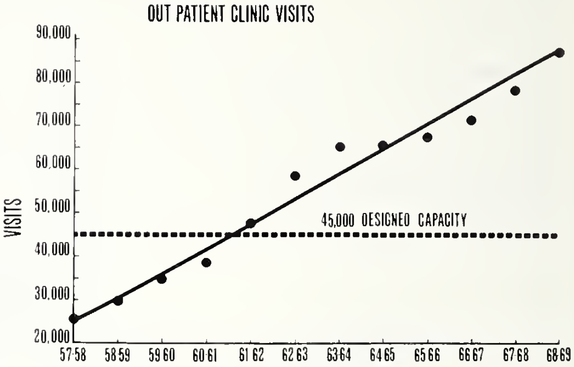

Fig. 6 Outpatient Clinic visits.

As you can see in Fig. 6, there has been a steady increase in the number of outpatient visits to the Medical Center since its inception. The original building was designed for 45,000 outpatient visits per year; this level was exceeded in 1962. In this past year, with approximately 90,000 visits, we have functioned at double the level for which the original structure was developed. Under these circumstances, we are not able to provide the level of medical education that should characterize a university medical center.

The proposed new building (Fig. 7) will enable us to handle as many as 125,000 outpatient visits per year. This building, in a sense, is a complement to the Medical Science Building addition completed last year which enabled us to increase our entering medical school class

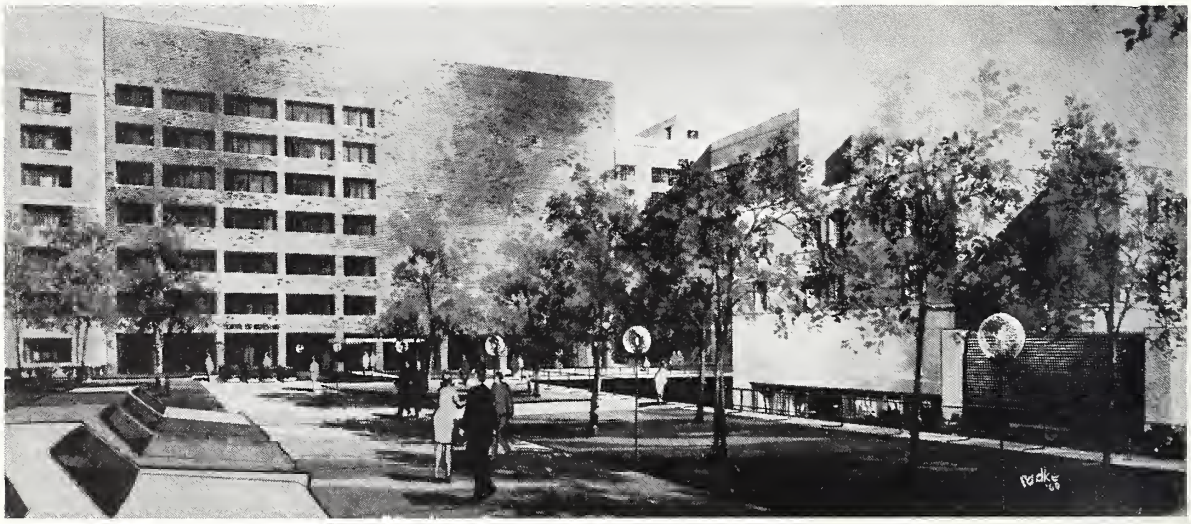

Fig. 7 Architect's drawing of the proposed Outpatient Clinic-School of Nursing Building.

from 85 to 100 students. The new Outpatient Clinic is necessary to provide much-needed teaching facilities in ambulatory medicine for this expanded class size. Indeed, the federal government's matching dollars for both the basic science building and the outpatient clinic structure are based on the increased educational needs for the expanded class. It is imperative in this day and age that our future physicians have an opportunity to learn about ambulatory medicine as well as medicine practiced within the framework of the hospitals.

In addition, as Fig. 6 demonstrates, there is a very real expectation from all over the state of Missouri for the availability of health care within the University Medical Center setting. Thus, the need for expansion of facilities is critical in terms of the educational program of the School of Medicine and in terms of patient-care needs for the citizens of the state.

In addition, the construction of this outpatient clinic facility will enable the conversion of the existing outpatient clinic into a comprehensive and continuing care program for patients within the Medical Center setting. This renovated facility will provide not only the basis for giving our medical students a chance to relate to families of patients over their entire four years of education in the School of Medicine, but, also, it will provide the basis of a greatly expanded General Practice or, in new terminology, Family Practice residency program. The latter will provide a basis for expanding our contributions for critically needed family practitioners to the state of Missouri.

The School of Nursing component of this building is equally critical. Missouri is well below the national average of nurses per 100,000 population. Only 14 states (most of them in the South) rank below Missouri. A survey conducted by the Missouri Division of Health in 1967 reported 1,353 unfilled, *budgeted,* full-time nursing positions in the state.

There currently are only six colleges or universities in the state offering baccalaureate programs in nursing. Three of these are private schools. In fact, at the present time, the University of Missouri-Columbia School of Nursing offers the only program in a state tax-supported school which has been approved for accreditation by the National League of Nursing. In addition, graduate (masters) programs in nursing are offered in only two institutions in the entire state, one private university (St. Louis) and the University of Missouri-Columbia. As a result of critical space limitations, we have had to limit enrollment in the School of Nursing in Columbia in our baccalaureate programs. For high school graduates, admissions are based on high school rank and scores on standardized tests. There were, for example, 93 applicants who could not be accepted for the class which entered last fall. Thirty-four of these students who were not accepted ranked scholastically in the highest one-quarter of their graduating high school classes and could have been expected to do quite well in the nursing program, *if* there had been room for them.

The new building would enable us to increase the number of nurses admitted to the baccalaureate program from 110 to 149 annually. In addition, it would permit us to increase the number of nursing graduate students from the 12 who were admitted this year to 28 in each class in the future. Baccalaureate nurses are desperately needed to assume key leadership roles in nursing throughout the state, and graduate degree nurses are critically needed to staff other nursing educational programs which at present either cannot develop or expand because of a dearth of qualified nursing faculty. Thus, this building would enable us to produce more well-educated nurses on our campus for the state and, also, permit us to train qualified teachers to train other nurses in educational programs throughout the state of Missouri.

Fig. 8 demonstrates the requests that have gone to the Legislature previously and the request that will go to the Legislature this year for the Outpatient Clinic-School of Nursing building. There have been site visits from two groups in the federal government involved in this single building. They are the Physician Manpower group and the Nursing Manpower group. Both groups have approved the structure and have recommended funding, but, of course, the federal government will not commit itself to matching dollars until the dollars are available

CAPITAL REQUESTS FOR
OUTPATIENT CLINIC- SCHOOL OF NURSING BUILDING

Fiscal Year	State	Other	Federal	Total
1968 -69	2,900,000	290,000	4,014,500	7,204,500 *
1969 -70	3,400,000	296,000	3,905,513	7,601,513
1970 -71	4,100,000	296,000	3,905,513	8,301,513

Total for two separate buildings

Fig. 8 Capital requests for Outpatient Clinic-School of Nursing Building.

from the state. Thus, there is no way of anticipating with any degree of assurance the availability of the federal dollars which were recommended by the site visitors until we have state dollars in hand to initiate the formal request for their matching component. You also will note a figure of $296,000 in terms of "other." This represents a commitment by the Lions Clubs of the state of Missouri for $250,000 toward the ophthalmology portion of the Outpatient Clinic building. The remaining $46,000 represents an equipment expenditure to match the federal dollars for teaching equipment in the School of Nursing addition.

You will further note that the cost of building has increased, resulting, of course, from increased construction costs. This increase must be borne totally by the state of Missouri. The federal government will not participate in the increase; their position is simply that if we had had the matching dollars by July 1, 1969, their commitment would have been made. Thus, the estimated $700,000 cost-increase in the building will have to be absorbed totally by the state contribution.

In summary, then, we feel that contained within this one physical structure are the mechanisms for providing (1) needed education in ambulatory medicine to our expanded class of medical students, (2) a significant expansion in the production of well-educated nurses for the state and (3) a marked increase in the availability of quality medical care to the citizens of Missouri. In addition, it makes available other space for increasing the output of family practitioners for the state of Missouri.

In spite of all this, the dollars have not been forthcoming from the state. Although we took real heart in the passage last summer of a bill to increase the state income tax, there now is a very real possibility that it will be invalidated. I point this out as only one example (in that it is the one with which I am most familiar) of the great needs within the state of Missouri in the health care area which has been postponed for two years and now has the possibility of further postponement due to the lack of dollars.

One obviously could cite numerous other equally critical examples of needs within the University structure or the Division of Mental Diseases or the Division of Welfare or secondary education.

I feel that it is vitally important that the people of Missouri realize at least some of the implications of the critically needed services which will not be met if the revenues of the state have reached their plateau. I am not a politician and do not pretend to be one, but I do have the responsibility for one of the resources of the state and can see what may be lost in health educational and health care advances if we continue on the course proposed by some.

Frankly, I am concerned. I hope that some of you may be concerned as well and will share those concerns with others.

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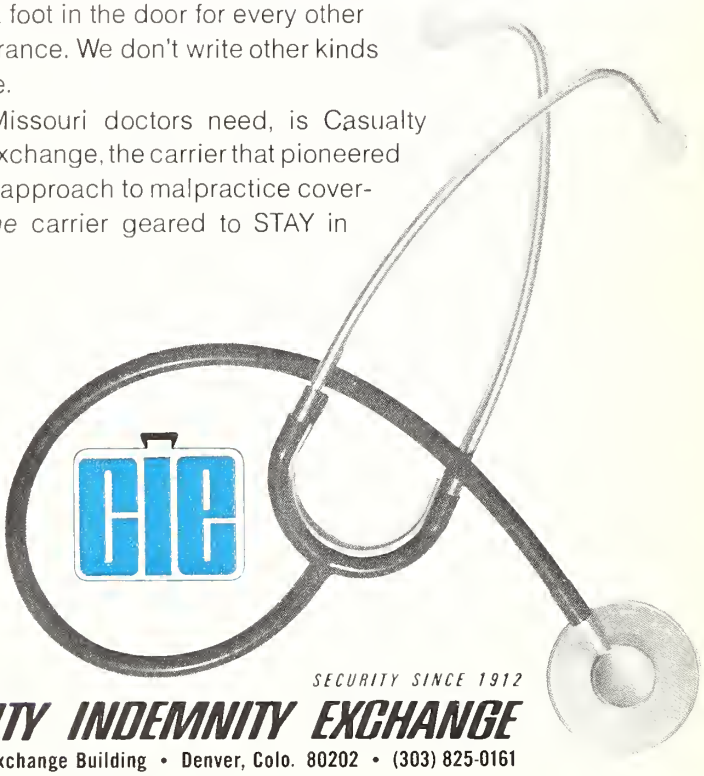

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WASHINGTON

The Nixon Administration called for limitations on Medicare and Medicaid reimbursements to physicians and hospitals.

Health, Education and Welfare Undersecretary John G. Veneman told the Senate Finance Committee that, because of rising costs, "it is now time to make some fundamental changes in the law which governs Medicare and Medicaid reimbursements." He said the reasonable cost and reasonable charge criteria in the Medicare law had not provided opportunity for major cost-control efforts.

"We need an incentive system of institutional reimbursement and we need changes in the law that will help control the increases in the amount that the Medicare program will recognize in the charges of individual practitioners. . . .

"I believe . . . that the law should be changed so as to limit further the rate at which increases in physicians' fees would be recognized by Medicare. The basic difficulty at present is that despite the improvements which have been made in applying reasonable charge guidelines, the best that can be done under present law is to introduce a lag in the recognition of fee increases. . . .

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"Customary and prevailing charges under the program and the fees recognized by the carriers under comparable circumstances in their own business reflect, in the long run and after a suitable lag in recognition of fee increases, whatever physicians choose to charge the public generally in a market where growing demand is pressing increasingly on the limited supply of health personnel.

"Reliance on Blue Shield fee schedules as the limiting factor in Medicare reimbursement, as suggested in the Senate Finance Committee staff report, however, would not seem to us to have long-run viability. Tying payments under a program as large as Medicare to Blue Shield schedules would surely exert a major upward pressure on those schedules. . . .

"We believe that it is necessary to move in the direction of an approach to reasonable charge reimbursement that ties recognition of fee increases to an index.

"Under such an approach, allowable charges recognized for Medicare would next year be generally limited to either presently recognized charges or to a new prevailing level set at the 75th percentile of 1969 average customary charges for a given service in an area. In the future, the prevailing charge screen would move upward only in proportion to increases in an index made up of pertinent portions of wage and price indices. Under such an approach, recognition of fee increases would continue, but only in relation to things that are happening in other parts of the economy and that have a bearing on the physician's cost of doing business."

The American Medical Association said that any proposal for further limitations on physicians' fees under the government programs would be unwise.

"For all practical purposes, a freeze on physicians' fees under the two federal programs has been in effect for more than a year and has proven to be ineffective," Gerald D. Dorman, M.D., AMA President, said. "The costs of the program have continued to rise in spite of the freeze.

"Physicians are disturbed by threats of additional federal controls.

"Burdening these busy doctors with more red tape and restricting payments to unrealistically low levels may drive them away from participating in Medicare and Medicaid. Then the government will have discriminated against many people who need medical care. . . .

"The national interests would be better served if everyone joined with the American Medical Association in its efforts to provide more physicians."

Congress finally approved an appropriation bill acceptable to President Nixon to provide funds for the Health, Education and Welfare and the Labor departments for the 1970 fiscal year which began last July 1.

The two departments operated under stopgap Congressional resolutions while Nixon and Congress battled over how much money the bill should provide. The President vetoed the first bill passed by Congress on the ground that it would be inflationary because it exceeded his budget by $1.2 billion. Congress sustained the veto but still refused to go all the way with Nixon in cutting funds for the two departments. The second bill totaled $19.4 billion, $680 million more than the President requested. But Nixon accepted the compromise amount when Congress added a provision authorizing him to withhold 2% of the funds.

The second bill had $176 million in Hill-Burton hospital funds, compared with $258 million in the vetoed measure. The appropriation for health facilities, educational research and libraries was cut from $149 million to $126 million.

Health manpower direct loan funds remained the same, $234.5 million, but an administration spokesman said it was planned to withhold $15.5 million. Other announced plans to withhold funds in the health field included:

–$6 million from $108.8 million for air pollution control;

–$6.3 million from $35.5 million for construction of community mental health centers;

–$6.3 million from $360.3 million for mental health programs;

–$8.7 million from $146.3 million for the National Institute of Arthritis and Metabolic Diseases;

–$5.7 million from $107 million for the National Institute of Neurological Diseases and Stroke;

–$1.3 million from $103.7 million for the National Institute of Allergies of Infectious Diseases;

–$10.3 million from $164.6 million for the National Institute of General Medical Sciences;

–$7 million from $76.6 million for general research and services.

Missouri Surgeons to Hold Annual Meeting on May 7-8

The Missouri Chapter of the American College of Surgeons will hold its Annual Meeting on May 7-8 at Tan-Tar-A Resort, Osage Beach.

Thursday's program will include a symposium on *Clinical Problems Indigenous to Missouri*, the annual business meeting, a free afternoon and the annual dinner.

Participants in the morning symposium and their subjects are F. B. Hershey, M.D., St. Louis, *The Missouri Brown Recluse and Its Bite;* J. W. Polk, M.D., Springfield, *Pulmonary Resections for Histoplasmosis and Cancer;* J. R. DuPont, M.D., Sikeston (title to be announced); and R. L. Glass, M.D., Sedalia, *Two Surgical Giants From Midstate Missouri.*

A panel discussion, *Management of Surgical Care Systems,* will be presented Friday morning. It will be summarized by R. F. Lauer, Ph.D., Columbia.

The Friday panel discussion will be followed by a symposium on *Advances in Surgical Care.* Participants in this section of the program and their subjects are W. T. Newton, M.D., St. Louis, *Immediate Postoperative Fitting of the Amputee;* B. E. Terry, M.D., Columbia, *Alimentation Without Intestine;* W. W. Monafo, M.D., St. Louis, *Intravenous Hypertonic Salt Solutions in the Management of Burns;* and N. W. Wheat, M.D., Gainesville, Fla., *Management of Dissecting Aneurysms of the Aorta.*

The meeting will be open to all members of the medical profession. Physicians who wish to attend but have not made reservations are urged to contact the Reservations Manager at Tan-Tar-A Resort immediately.

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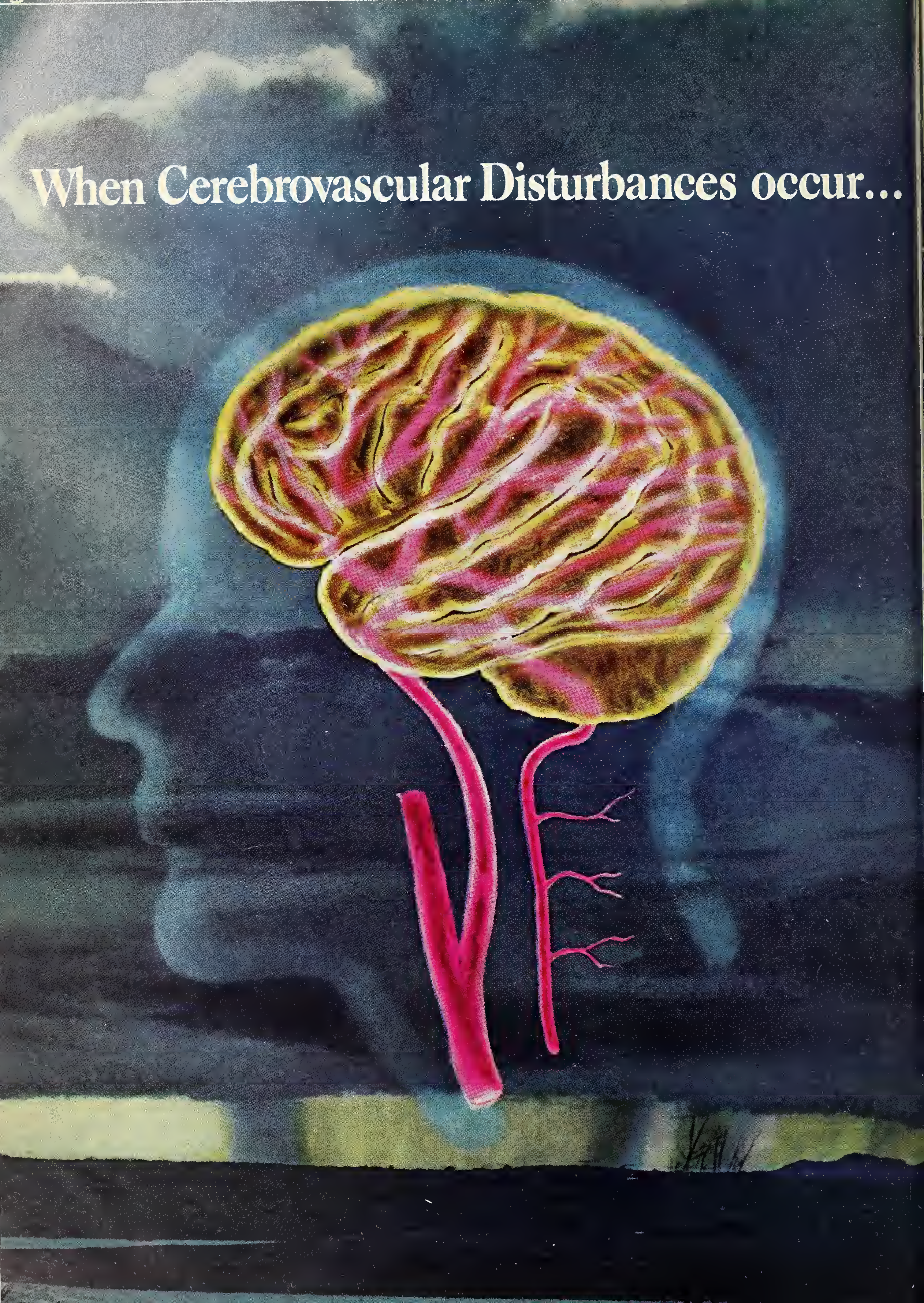

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Notes of interest from Here . . . . and There

Dr. Richard O. Sutter, St. Louis, participated in an occupational health conference called by the State Medical Society of Wisconsin in Racine on March 11. Dr. Sutter is Chairman of the MSMA Committee on Industrial Health and a member of the American Medical Association's Council on Occupational Health.

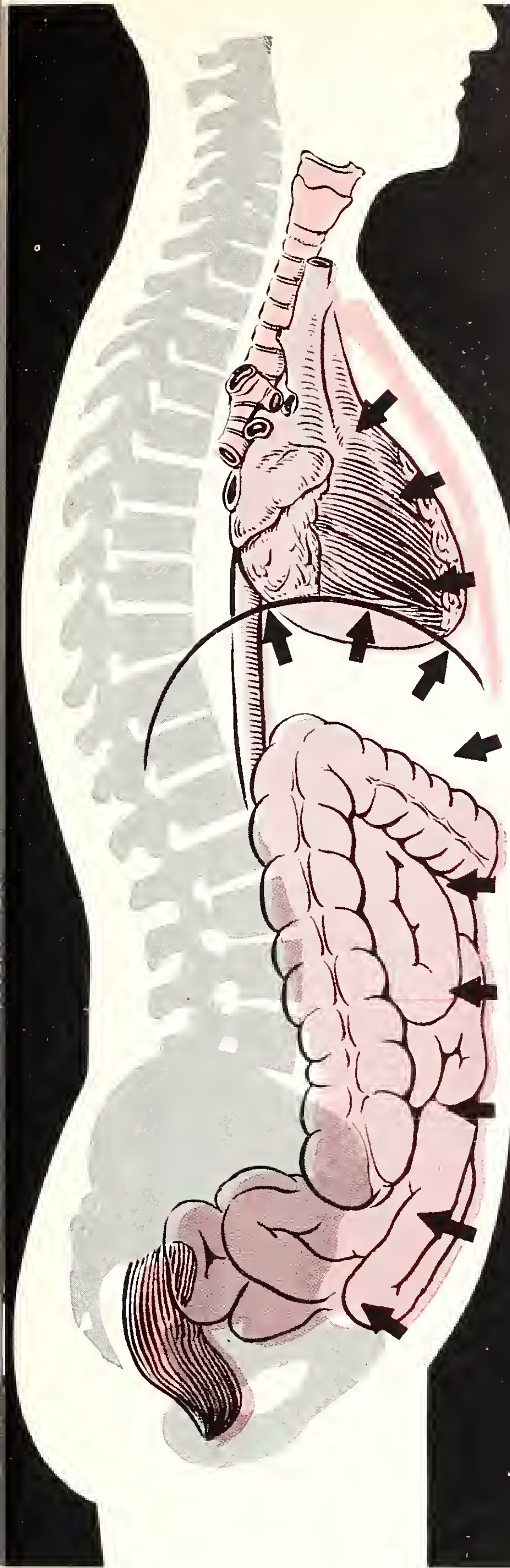
Dr. Bernard Flotte of Florissant, who has been volunteer physician to the residents of the Little Sisters of the Poor home for 31 years, was honored by residents of the home and by Bishop Joseph McNichols who gave him a "good merit" medal and plaque from Pope Paul VI. Dr. Flotte, a staff physician at DePaul Hospital, also has helped to establish a parochial school medical program and acts as school doctor.

Dr. C. A. McBurney, Slater, served as moderator during the annual six-day meeting of the Medical Society of Pan-American Doctors' Club in Hidalgo, Mexico on February 26-March 2. Dr. McBurney is serving his fourth year as secretary-treasurer of the society for doctors from Canada, the United States and Mexico.

Dr. William R. Cole, formerly of St. Louis, has joined the staff of Bothwell Hospital in Sedalia.—**Dr. Everett L. Smith**, Carrollton, is the new chief of the medical staff of Carroll County Memorial Hospital. Other officers elected recently are **Dr. E. W. Allen**, vice-chief of staff and **Dr. J. H. Platz**, secretary-treasurer.

A new physicians' building is under construction in Maryville near the new St. Francis Hospital. The building, which is scheduled for completion by July 1, will be occupied by **Drs. E. D. Imes, G. R. Wempe, R. E. Dunshee, J. R. Leach** and **B. F. Byland.** The building will contain in excess of 7,000 square feet of floor space on the ground floor.

Dr. Harvey R. Butcher, Jr., St. Louis, is one of five U.S. physicians whose comments on treatment of perforated diverticulitis appear in a "Forum" article in the February issue of *Modern Medicine*. Dr. Butcher serves in the Department of Surgery at Barnes and Wohl hospitals and Washington University School of Medicine.



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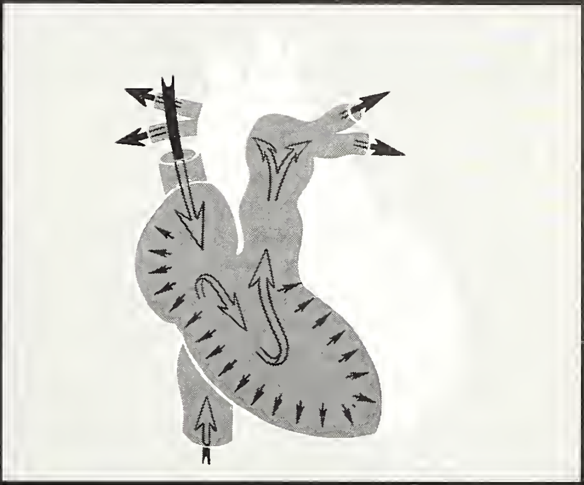

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st, C. H. and Taylor, N. B.: *The Physiolog-*
l Basis of Medical Practice, 7th edition,
liams and Wilkins, Baltimore, 1961, p. 480.

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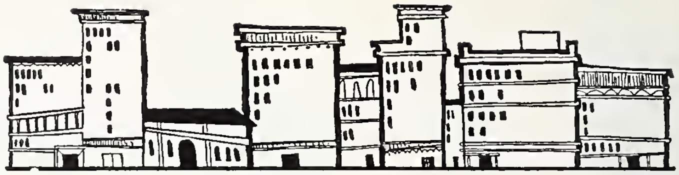
From the Medical Schools



Gov. Warren E. Hearnes visits with *(left to right)* Dr. William H. Knight, Dean Robert H. Felix and Dr. Max Pepper following his lecture as the St. Louis University Medical Center.

ST. LOUIS UNIVERSITY

The Honorable Warren E. Hearnes, Governor of Missouri, spoke on "Community Health Problems" at a program sponsored by the Department of Community Medicine at the St. Louis University School of Medicine and the Division of Health Care Research, Washington University School of Medicine.

Dr. Robert H. Felix, dean, School of Medicine, and Dr. Max Pepper, chairman, Department of Community Medicine, greeted the Governor and took part in the program held at the St. Louis University Medical Center February 9.

Announcement of 15 new appointments at the School of Medicine and one at the School of Nursing and Allied Health was made by Rev. Edward J. Drummond, S.J., vice-president, Medical Center.

Those named included faculty with dual appointments, full-time and some part-time appointments. Three are in the Department of Community Medicine headed by Dr. Max Pepper. They are Dr. Felix E. F. Larocca, who holds a primary appointment in the Department of Neurology and Psychiatry, who was named assistant clinical professor of community medicine; Miss Frieda Brackebusch, director of social service at the St. Louis University Hospitals, who was named assistant professor of community medicine; and Mr. A. J. Henley, project director, Yeatman Neighborhood Corp., who was named instructor in community medicine.

Dr. James S. Nelson, associate professor of neurology and psychiatry, was named associate professor of neuropathology. Dr. Milton T. Fujita was given the dual appointment of assistant professor of child psychiatry in the Department of Neurology and Psychiatry and assistant professor of pediatrics in the Department of Pediatrics.

Named instructors and their specialty areas were Dr. David Amado-Ledo, internal medicine; Dr. Thomas E. Bourke, internal medicine; Miss Betty Ann Grobe, nursing; Dr. Bruce A. Heyl, psychiatry; Dr. Albert L. Howe, internal medicine; Dr. Karl J. Kurtz, surgery; Dr. Basil A. Molony, internal medicine; Dr. Chan Ock Park, pediatrics; Miss Carlyn L. Puricelli, instructor in social work in psychiatry; Dr. Edward A. Roach, internal medicine; and Dr. William B. Webber, surgery.

Dr. Maurice Green, director, Molecular Virology Institute, delivered a lecture sponsored by the Carcinogenesis Program of the Biology Division of Oak Ridge National Laboratory, Oak Ridge, Tenn. on March 4. Dr. Green also was scheduled to lecture in the Distinguished Scientist Program of the Department of Anatomy of Tulane University School of Medicine, New Orleans.

The annual Albert Kuntz memorial lecture sponsored by the Phi Chi medical fraternity was delivered by Dr. Simon Horenstein, associate professor of neurology, Case Western Reserve University and chief, division of neurology, Highland View Hospital, Cleveland. His lecture was entitled "Anatomy of Psychic Function." Dr. Horenstein's discussion dealt with the concepts of neuroanatomy as they are applied to studies of behavior.

Dr. Denis Cavanagh, professor and chairman, Department of Gynecology and Obstetrics, attended a meeting of the American College of Obstetrics and Gynecology in Kansas City on February 7 and the meeting of the Association of Gynecology and Obstetrics at the Monteleone Hotel in New Orleans on February 16-17. Also present for the latter meeting were Drs. Ralph E. Woods, assistant professor of gynecology and obstetrics; Manuel R. Comas, assistant professor of gynecology and obstetrics; and Frank Os-

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stands to reason. They all go through the same train- g; they all have to pass the same tests; they all have measure up to the same standards; they all are nderpaid, too. Therefore, all interns are alike.

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tapowicz, assistant professor of gynecology and obstetrics.

The Department of Internal Medicine was well represented at the Missouri Region of the American College of Physicians and the Missouri Society of Internal Medicine, which met in Columbia on February 27-28. Ten members of the department who presented papers at the meeting were Drs. Thomas F. Frawley, John J. Garrett, Edwin E. Westura, Raymond G. Slavin, Neil Gallagher, Kenneth Walter, Jack Zuckner, Edward D. Kinsella, David D. Rendleman and Theodore M. Kanellakes.

WASHINGTON UNIVERSITY

A distinguished neurosurgeon, Henry G. Schwartz, M.D., has been appointed the first incumbent of a new Professorship of Neurological Surgery at Washington University. Endowment of $500,000 for the Professorship is being provided by the Anheuser-Busch Charitable Trust whose Board of Directors wish to pay tribute to Dr. Schwartz's leadership in a field that has grown to prominence in St. Louis.

William H. Danforth, M.D., vice-chancellor for medical affairs, said, "Washington University has chosen to name the chair the August A. Busch, Jr. Professorship of Neurological Surgery, in honor of a man whose contributions to the St. Louis community embrace many aspects of civic life. As August A. Busch Professor, Dr. Schwartz heads an anticipated long line of eminent scholar-teachers to be named to the chair."

The Busch name is particularly appropriate, because from the School of Medicine's early days, the Busch family has been closely allied with this institution.

Dr. Schwartz came to Washington University in 1936 and since 1946 has served as professor of neurological surgery, a post he accepted at the time of the retirement of his predecessor, Ernest Sachs, M.D. First of all a clinician, he couples his skill as a surgeon with understanding and deep compassion for suffering. By his example, he has inspired the oncoming men and women in medicine to high levels of performance. His group has built a wide reputation so that patients are drawn to the Washington University Medical Center from all sections of the United States and from distant parts of the world.

Dr. Schwartz has perpetuated the tradition begun under Dr. Sachs of preparing young people for excellence in clinical teaching and in investigative aspects of neurosurgery. In addition to his clinical and teaching responsibilities, Dr. Schwartz has been equally active as a scientist. His research interests, and those of his associates, are centered in the physiology of the nervous system. One of their notable achievements is development of an effective operation for the relief of pain. Their clinical research has included studies on penetrative brain wounds, seizures and pathways from the brain that control motor activity. Dr. Schwartz has 57 publications to his credit.

Norman Kretchmer, M.D., a developmental biologist, delivered the Fourth Alexis F. Hartmann, Sr., Lecture at the School of Medicine on February 16. Dr. Kretchmer, chief of the division of developmental biology at Stanford University School of Medicine, spoke on the subject, "The Creation of a Human Biologist: A New Curriculum." A pediatrician and biologist, he is interested in man's ability to control and adapt to his environment.

The lecture was established in 1959 to honor Dr. Hartmann for his contributions to pediatric education. He was head of the Department of Pediatrics at Washington University School of Medicine and physician-in-chief of St. Louis Children's Hospital from 1936 until 1964 when he retired from both positions. He continued as professor of pediatrics until his death in September, 1964.

MISSOURI UNIVERSITY

Brig. Gen. Carl W. Hughes, commanding officer of Walter Reed General Hospital in Washington, D. C. and a 1940 graduate of the University of Missouri, will be honored by the Missouri Medical Alumni Association at its annual luncheon meeting on April 3 at the Muehlebach Hotel in Kansas City. Alumni president William H. Snead of Springfield will present Gen. Hughes a Citation of Merit Award.

Gen. Hughes

A native of Eminence, Gen. Hughes received a B.S. degree in medicine from the two-year University of Missouri School of Medicine in 1940 and received his M.D. from the University of Tennessee. His internship was at Baptist Memorial Hospital in Memphis and his surgery residency was at Walter Reed General Hospital, af-

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ter one year at John Gaston Hospital in Memphis.

Last year, the general was awarded the Legion of Merit by the Army. His previous awards include the Arthur M. Shepley Award for 1968, Commander of the Most Noble Order of the Crown of Thailand, Sir Henry Wellcome Award for 1958 for the most original investigation in the field of military medicine, the Bronze Star Medal, and the Army Commendation Medal with First Oak Leaf Cluster. He has authored or co-authored two books and more than 70 publications. His primary interests have been trauma, acute vascular injuries, traumatic arteriovenous fistulas and aneurysms, and portal hypertension.

Dr. Marion S. DeWeese, professor and chairman of the Department of Surgery, has been named to a committee of noted U. S. surgeons who have been asked to advise the Greek government on medical-surgical education.

The Ministry of Social Service of Greece invited the committee to Athens in February to participate in a study of Greek medical education, with special emphasis on surgical education, for the purpose of making recommendations of improvements in the standards of medical-surgical education in Greece.

The 12-man group of American surgeons includes Dr. Michael DeBakey, heart surgeon at Baylor University; Dr. Reed Nesbit, former president of the American College of Surgeons now on the faculty at the University of California at Davis; and Dr. Alton Ochsner, head of the Ochsner Clinic in New Orleans.

Dr. David Davis, professor of psychiatry, has been elected a fellow of the Royal Society of Health of England. Dr. Davis, currently on leave from the University, is serving as visiting scientist at the National Center for the Prevention and Control of Alcoholism, National Institute of Mental Health, Bethesda, Md. During his leave, he is conducting research into mood changes in alcoholics with experimentally-administered doses of alcohol.

Dr. Richard A. Guthrie, assistant professor of pediatrics, has been invited to be a visiting professor on August 3-8 at the School of Medicine of the University of Haiti in Port-au-Prince. Dr. Guthrie and his wife, Diana, diabetic nurse consultant at the University of Missouri Medical Center, also will spend part of August with a service project in Haiti under the sponsorship of the Reorganized Church of Jesus Christ of Latter Day Saints. Dr. Guthrie is national president of the medical-dental association of the church which will conduct clinics in small communities on the island.

The completely revised third edition of "Cardiac Arrest and Resuscitation" by Dr. Hugh E. Stephenson, Jr., professor of surgery, has been published by the C. V. Mosby Co., St. Louis.

Dr. Stephenson and 15 internationally known contributors probe all aspects of this area of medicine, bringing the reader up to date on a variety of new advances including: effects of prolonged heart massage; cardiovascular augmentation devices; the role of blood-gas analysis in monitoring; elective cardioplegia; hyperbaric oxygenation; ambulance resuscitation; cardioversion; and new pharmacological agents of value in cardiopulmonary resuscitation. Among the new contributors to the third edition of Dr. Stephenson's book are Prof. Juro Wada of Sapporo, Japan, Prof. V. A. Negovskii of Moscow; Prof. Werner Overbeck of Frieberg, Germany; and three faculty members at the University of Missouri, Dr. Franklin L. Mitchell, Dr. Jack M. Martt and Dr. Richard H. Martin.

Five research grants have been awarded to the following doctors at the School of Medicine since January 1:

—Dr. Douglas M. Griggs, associate professor of physiology, received a grant of $26,203 from the Public Health Service for research on "Coronary Hemodynamics and Myocardial Metabolism."

—A grant of $20,153 was awarded by the Public Health Service to Dr. Robert L. Wixom, associate professor of biochemistry, for a project studying "Histodine Biosynthesis in Animal Development."

—"Effects of Detergents on Intestinal and Renal Functions," will be studied by Dr. Marvin Zatzman, associate professor of physiology, with a grant of $13,833 from the Department of Health, Education and Welfare.

—Dr. Constantine Anast, professor of pediatrics, received $18,942 from the Public Health Service for "Studies of Magnesium Metabolism."

—A Cystic Fibrosis Clinical Center Grant for $1,850 was awarded to Dr. Calvin Woodruff, professor of pediatrics, from the National Cystic Fibrosis Research Foundation.

Continuing Education Coming Events

April 6-8	**Computerized Radiologic Diagnosis** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
April 6-8	**Symposium—Ophthalmology** University of Kansas School of Medicine Kansas City, Kan. 66103
April 7-9	**Seminar—Comprehensive View of Cardiovascular Disorder** Menorah Medical Center, Kansas City 64110
April 10-11	**Midwest Cancer Conference** *"Cancer and Its Clinical Management"* Broadview Hotel, Wichita, Kan. (AAGP Credit)
April 13-15	**Symposium—Anesthesiology** University of Kansas School of Medicine Kansas City, Kan. 66103
April 17	**Symposium—Infectious Diseases** University of Kansas School of Medicine Kansas City, Kan. 66103
April 20-22	**Lesions Related to the Spinal Cord** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
April 24	**Seminar—Pediatric Nuclear Medicine** Kansas City General Hospital, Kansas City 64108
May 11-12	**Symposium—New Concepts in Cardiac Arrhythmias** University of Kansas Medical Center Kansas City, Kan. 66103
May 12-14	**Seminar—The Changing Spectrum of Medical Care** Menorah Medical Center, Kansas City 64110
May 13-14	**Spring Clinical Conference—Selected Topics in Internal Medicine** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
May 15	**Communication Disorders** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
May 15	**Eighth Annual Pediatric Seminar—Adolescence** Baptist Memorial Hospital, Kansas City 64131
May 28	**Education Day Seminar** Menorah Medical Center, Kansas City 64110

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Missouri Medicine

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WILLIAM D. GAUNT, M.D. *and* **CARL T. RINKER, M.D.,** *Columbia*

Gout-Like X-rays in Active Men With Rheumatoid Arthritis

Case Reports

HEAVY RELIANCE often is placed on x-ray findings as part of the criteria in the diagnosis of various types of arthritis. However, x-rays interpreted out of context with the patient's history, physical examination and laboratory studies may be misleading. Moreover, interpretation of x-rays of one particular part of the body, e.g., the feet, without knowledge of x-rays of other joints also may be misleading.

At the University of Missouri Medical Center, we have observed seven patients with definite rheumatoid arthritis[1] whose x-rays were interpreted either as gouty arthritis or as resembling gout. It was of interest to us that all seven of these patients were men who had remained active and were often doing heavy manual labor. The possibility that being physically active men contributed to their atypical x-ray findings and the importance exemplified by these patients of knowing the entire clinical status of an individual before making a diagnosis of a specific type of arthritis prompted us to report their cases.

CASE REPORTS

Table 1 shows a summary of some of the clinical features of these seven patients. All seven met the American Rheumatism Association criteria for a diagnosis of definite rheumatoid arthritis.[1] All seven were white men whose ages ranged from 43 to 68. Three were farmers, two were mechanics and the remaining two also were physically active in their occupations. The duration of arthritis varied between two and 56 years. Three of the men had subcutaneous rheumatoid nodules. Steroid therapy had usually been brief or nonexistent. Six of the men had reactive tests of the serum for rheumatoid factor (RA-TEST, Hyland Laboratories) and the seventh had a transiently weakly reactive test. The serum uric acid determinations were normal in all seven. The x-ray findings are listed. Gout was considered in the differential diagnosis of the radiographic findings. In two of these individuals, gouty arthritis was thought to be the most likely x-ray diagnosis.

The following two typical patients are reported in detail along with their x-rays:

Case # 3. (Table 1) This 49-year-old mechanic had had a painful right knee with occasional

This paper presents a study of seven physically-active men with definite rheumatoid arthritis whose x-ray findings strongly resemble gouty arthritis. Detailed case reports of two of the patients are included. The authors give a possible explanation for these atypical x-ray findings. Dr. Gaunt is Associate Professor in the Department of Medicine and Dr. Rinker is Assistant Professor in the Department of Radiology of the University of Missouri School of Medicine.

TABLE 1

Case	*Age*	*Sex*	*Occupation*	*Duration of R.A.*	*Steroid Therapy*	*Rheumatoid Factor*	*Sed Rate mm/hr*	*Serum Uric Acid mg%*	*X-rays*
#1	46	M	Mechanic and filling station operator	Two yrs (constant)	Two tablets/day x 1 mo, 1 yr before examination	Reactive	32	4.8, 4.7	*Feet* a. Narrowing first and third metatarsophalangeal joints. b. Subcortical erosions of phalanges and metatarsals. *Hands* a. Narrowing of the metacarpophalangeal joints. b. Metacarpal erosions. c. Soft tissue swelling over ulnar styloid.
#2	68	M	Farming	56 yrs (constant for 53 yrs) Rheumatoid nodules 16 yrs	I.M. injections (?ACTH) every 2 wks for 18 yrs, about 6 mos per yr None for 8 mos	Reactive	51	2	*Feet* a. Narrowing of tarsal, metatarsophalangeal, and interphalangeal joints. b. Erosion 1st metatarsophalangeal joint. *Hands* a. Generalized erosion narrowing and ankylosis of many joints.
#3	49	M	Mechanic	21 yrs	One injection 3 wks prior to examination	Reactive	36	4.2	*Feet* a. Multiple cystic changes in distal interphalangeal joints of both great toes, especially the left toe. b. Partial subluxation metatarsophalangeal joint left fourth toe. c. Periarticular bone resorption right fourth and fifth toes. *Hands* a. Cyst triquetrum, right hand. b. Swelling of proximal interphalangeal joints with narrowing of joint spaces.
#4	54	M	Farming (until 1 yr prior to examination)	10 yrs	Not stated	Reactive	40	4.9	*Feet* a. Cystic erosion first, fourth and fifth metatarsophalangeal joints. *Hands* a. Narrowing proximal interphalangeal joints with erosions.
#5	57	M	Farming and construction work	8 yrs	1960-1962; none for 5 yrs	Weakly reactive and negative	41	6	*Feet* a. Small erosions first, fourth and fifth metatarsophalangeal joints.

									Hands Demineralization ulnar styloids with associated soft tissue swelling.
#6	48	M	Postal clerk	25 yrs (residual from onset)— subcutaneous nodules left olecranon	½-1 tab/day x 1 mo	Reactive	12	5.3	*Feet* a. Cystic & lytic areas left first, fourth and fifth metatarsophalangeal joints (Fig. 1). *Hands* a. Erosion and soft tissue swelling right ulnar styloid process. b. Swelling of proximal interphalangeal joints.
#7	43	M	Administrative ass't.	25 yrs—no residual until 5 yrs before examination Subolecranon nodules (3 yrs) and olecranon nodules (1 yr)	No steroids	Reactive	33	3	*Feet* a. Multiple erosions & cystic changes of metatarsophalangeal joints bilaterally. *Hands* a. Cystic erosions carpal bones. b. Cystic erosions at the base of the metacarpals. c. Narrowing proximal interphalangeal joints bilaterally.

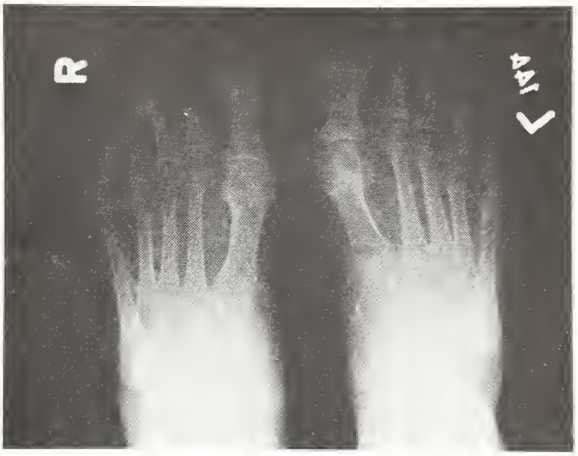

Fig. 1 (Table 1) Both feet (Case # 6).

swelling for 21 years. Eleven years prior to admission, he had had the onset of pain at the left shoulder. Five years prior to admission, he had developed pain and swelling at the proximal interphalangeal joints, right wrist and metatarsophalangeal joints. Three years before admission, he had had an exacerbation in the proximal interphalangeal joints, metacarpophalangeal joints, right wrist, both elbows and the metatarsophalangeal joints. For one year, his left ankle had been involved and symptoms in the metacarpophalangeal joints had increased. One month before his admission, he had had an increase in symptoms in the proximal interphalangeal joints, wrists, metatarsophalangeal joints and left ankle. He had had one injection of "cortisone" three weeks before admission and had worked fairly regularly until one month prior to his examination. Previous treatment had included eight hours of rest per 24 hours, eight to ten aspirin tablets daily and warm packs.

Physical examination revealed tenderness in the left shoulder anteriorly. The right wrist was slightly swollen and limited in motion. There was moderate swelling and tenderness in the metacarpophalangeal joints and the proximal interphalangeal joints of the hands. He was able to make good fists. The right knee was crepitant. There was moderate swelling of the left ankle and the metatarsophalangeal joints. Callouses were present at the left fourth finger pad where he customarily held a wrench.

Laboratory data were are follows: hemogram, normal; urinalysis, negative; erythrocyte sedimentation rate, 36 mm/hr (Wintrobe); serum uric acid, 4.2 mg/100 cc; LE cell preparation, negative; rheumatoid factor present; total proteins, 6.8 gm/100 cc; serum albumin, 5.2 mg/100 cc; globulin 1.6 gm/100 cc. X-rays of the elbows demonstrated calcification in the extensor tendon of the right triceps. X-rays of the knees showed cystic changes. X-rays of the shoulders and cervical spine were normal. X-rays of both feet showed periarticular bone resorption of the right fourth and fifth toes. There was partial subluxation of the fourth left meta-

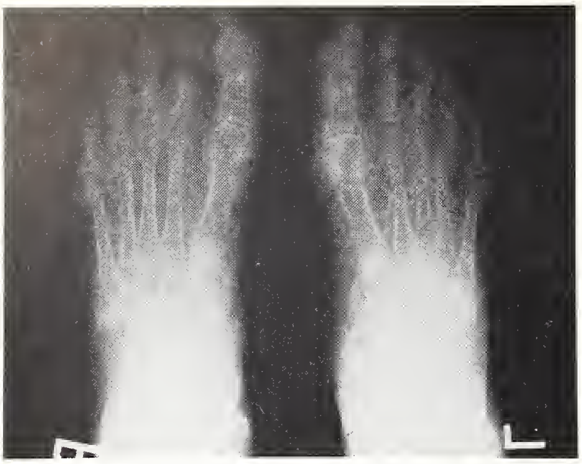

Fig. 2 Both feet (Case # 3).

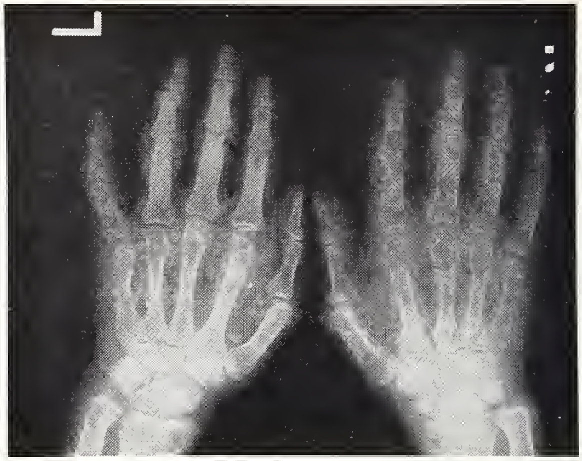

Fig. 3 Both hands (Case # 3).

tarsophalangeal joint. Multiple cystic changes were present in the interphalangeal joints of both great toes with destruction of both sides of the articular cortex of the left great toe (Fig. 2). X-rays of both hands revealed a metallic foreign body in the soft tissues of the thumb of the left hand. There was fusiform swelling of the proximal interphalangeal joints with narrowing of the joint spaces, particularly of the third, fourth and fifth fingers on the left. A cystic lesion of the right triquetrum was present (Fig. 3). The x-ray findings, particularly of the feet, suggested the possibility of gouty arthritis.

During his hospitalization, a synovectomy of his right wrist was performed. Microscopic examination of this synovium revealed mild chronic inflammation. The synovial tissue was lined by slightly thickened and swollen synovial cells with scattered lymphocytes beneath this layer. He also was treated with aspirin, indomethacin, nitrogen mustard injections of the finger joints and physical therapy. He was discharged with improved motion in his hands.

Case # 7. (Table 1) This 43-year-old administrative assistant had had pain and swelling of the left knee 25 years before his visit. Within two years, he had had three episodes in the left knee without permanent residual. Twenty-two years before his visit, his temperomandibular joints, shoulders, elbows, wrists, metacarpophalangeal joints, proximal interphalangeal joints, lower back and metatarsophalangeal joints had become involved. Five years before his visit, he had developed chronic changes in most of the involved joints. He had had morning stiffness for two years, particularly at the metacarpophalangeal joints and feet. He had had subolecranon nodules for three years and olecranon nodules for one year. His last acute episode had been in the right elbow one month before his visit. His most symptomatic joints had been the metacarpophalangeal joints in which he had had recurrent pain and stiffness. One month before his visit, a histologically proven subcutaneous rheumatoid nodule had been removed from the right olecranon region.

He had worked regularly, standing long hours, and had obtained ten hours of bed rest per 24 hrs. He had taken four to six aspirin tablets daily only for his acute exacerbations. He had not received any physical therapy, steroids, gold or chloroquin.

Physical examination revealed tenderness at the right acromioclavicular joint. Right subolecranon and left olecranon subcutaneous rheumatoid nodules were present. Dorsiflexion of the right wrist was moderately limited. Moderate swelling of the metacarpophalangeal joints (especially the second and third) was present. He was able to make 80% fists. There was thickening of the metatarsophalangeal joints.

Laboratory data were as follows: hemogram, normal; urinalysis, negative; erythrocyte sedimentation rate, 33 mm/hr (Wintrobe); LE cell preparation, negative; serum uric acid, 3 mg/100 cc; rheumatoid factor present. X-rays of both hands and wrists showed alterations in the wrists and in the metacarpophalangeal joints, especially of the first, second and third fingers of each hand. Cystic changes were present in the left navicular bone. The first carpometacarpal joints were narrowed (Fig. 4). X-rays of both feet showed narrowing of the first metatarsophalangeal joints. The most striking findings in the feet were numerous irregular radiolucencies in the distal ends of the metatarsals and of many of the phalanges near the articular surfaces (Fig. 5). Initially, these changes were thought to raise the possibility of gout, particularly since the mineralization of the bones appeared normal and, except for the first metatarsophalangeal joints, the joint spaces appeared to be well preserved.

The patient's program included extra rest, aspirin, physical therapy and metatarsal bars for his shoes. He had further intermittent episodes of pain,

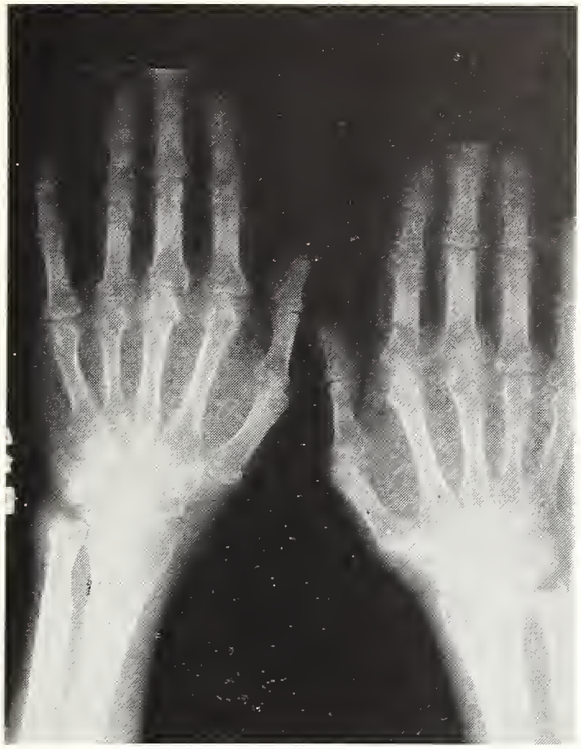

Fig. 4 Both hands (Case # 7).

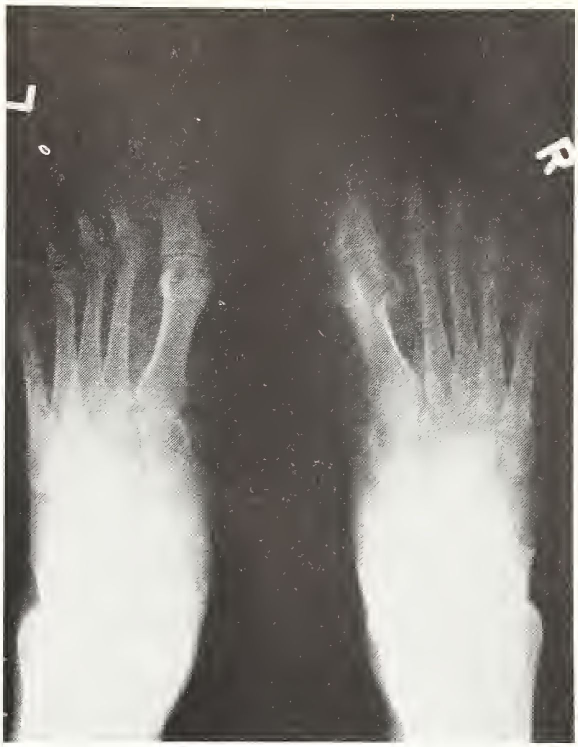

Fig. 5 Both feet (Case # 7).

stiffness and swelling in his knees. About two years after his first visit, he developed pain in the left side of his chest which was found to be caused by a bronchioalveolar carcinoma from which he died four years later. He had remained ambulatory even during the terminal months of his disease.

Discussion

X-rays of rheumatoid joints may mimic those of gouty joints[2, 3] since both of these diseases can cause cystic erosions and soft tissue swelling. The resemblance is particularly striking when these changes occur at the first metatarsophalangeal joint.

Features favoring an x-ray diagnosis of rheumatoid arthritis are localized and generalized osteoporosis, symmetrical fusiform swelling, bony ankylosis and involvement of the shoulders, hips and spine.[3] A punched-out area in the bone overlaid by a sharply circumscribed asymmetrical swelling in the soft tissues (tophus) is typical of gout.[3] The "punched-out" erosions of bone in gout result from resorption of bone by osteoclasts present in the reactive granulation tissue surrounding the intra-osseous deposits of sodium biurate (tophus).[4]

In 1960, Bywaters[5] reported that cystic changes in rheumatoid joints occur especially in people with a high pain threshold, good muscles and jobs requiring strength. A study by Castillo, El Sallab and Scott in 1965[6] assessed the relationship of physical activity, cystic erosions and osteoporosis in rheumatoid arthritis and found a close relationship between the degree of physical activity and the development of large cystic erosions. Osteoporosis was inversely related to these two factors. Cystic erosions were seen more often in men. Scott, in the discussion at the end of the report, stated that patients with these large cystic erosions manage to continue their activities and that this was because of their own attitude and not because of any particular treatment they were receiving. The patients we are presenting also have frequently minimized their symptoms and have proceeded with their work.

Saville and Kharmosh,[7] in a study of rheumatoid arthritics, found osteoporosis to be a common finding in both men and women, but especially in women over age 50. Corticosteroids for rheumatoid arthritics increase the incidence and severity of osteoporosis, but, again, more so in women over age 50 than in men. Most of the patients we are reporting received little or no corticosteroids and all were men.

The origin of the "pseudocysts," which are essentially the same as pocketed erosions, is the

(Continued on page 235)

ROBERT W. ALLEN, M.D. *and*
LESTER E. WOLCOTT, M.D., ***Columbia***

Major Considerations in the Geriatric Amputee

A GREAT DEAL OF EMPHASIS has been directed toward the well-being of the aged population during the past several decades. Not only has this group been the focus of comprehensive health care, but the quality of their care is now under constant scrutiny. While this emphasis is obviously warranted, it has inevitably produced a categorical approach to the care of the aged which is not altogether desirable. It must constantly be remembered that age alone cannot serve as a base criterion for medical management or general health care.[1, 2]

While most categorical "geriatric problems" are considered to begin in accordance with the accepted onset related to reaching one's 65th birthday, a national research conference on the amputee in 1962[3] designated the geriatric amputee as "55 years of age and above." This approach to the significance of age related to prosthetic rehabilitation places undue emphasis on chronologic age as a guide for rehabilitation of the amputee. The discrepancies between chronologic and physiologic age are completely ignored even though they increase with advancing age. Regardless of the grouping, continued medical supervision of the amputee's rehabilitation program is essential. It is unfortunate when the management of this disability is delegated to a prosthetic salesman or, even, a prosthetist. To ensure success, a competent physician must guide the amputee program, especially for the geriatric amputee, through its various phases. There are many considerations which affect this program from the preamputation workup through continuing care.

The era of modern prosthetic replacement techniques in the lower-extremity amputee has been characterized by tremendous advances in biomechanics and in the technology related to new materials and fitting techniques. Unfortunately, these benefits have not been provided for the geriatric amputee to a large extent on the basis of the malconceived additional "disability" of increased age. While one cannot deny the difficulty in providing satisfactory prosthetic replacement in the older group, the tendency to categorically restrict modern prosthetic and rehabilitation techniques in the elderly amputee has no scientific support.

One also must consider that, in spite of the marked advancements in the science of biomechanics and in prosthetic technology, the *above*-knee amputee must accept a far greater disability than his *below*-knee counterpart. This becomes greatly magnified in the geriatric patient due to the inevitable complications of aging related to agility, strength, proprioception and exercise tolerance. Added to these factors is the widespread belief that the majority of below-knee amputations in the elderly will not heal or eventually will require reamputation at a higher level. It will be pointed out that this is not the experience of many investigators.

Recently, a bright light has appeared on the horizon and may negate these deficiencies in present prosthetic rehabilitation techniques. The rapidly increasing utilization of the immediate postoperative fitting technique described by Weiss[4] six years ago gives promise of promoting more amputations below the knee as well as the application of modern prosthetic fitting and fabrication techniques. The avoidance of stump edema, phantom pain and prolonged immobility by this technique of amputee management has great potential for reducing the overall disability in this group of patients.

Experience in the Amputee Clinic at the University of Missouri Medical Center would indicate that careful consideration of these *three* major factors (prosthetic replacement, level of amputation and immediate postoperative fitting) in the management of the geriatric lower extremity amputee will provide substantial improvement in the rehabilitation of these patients.

PROSTHETIC REPLACEMENT

To a significant extent, satisfactory prosthetic replacement is based on a comprehensive approach to rehabilitation of the amputee including these arbitrary divisions: (1) Preamputation counseling and conditioning; (2) Preprosthetic program; (3) Prosthetic prescription, fabrication and fitting; and (4) Postprosthetic program.

Whenever possible, the patient should be advised concerning the rehabilitation program in which he will be expected to participate following his amputation. At this time, a general physical conditioning program (including crutch walking) which will be continued subsequent to amputation should be instituted. Following amputation, continuation of the above with the addition of a stump conditioning sequence produces a satisfactory result in the majority of patients. Wrapping with an elastic bandage and maintenance of strength and range of motion is usually sufficient. In some instances, however, it may be necessary to use a pneumatic boot or serial plaster casts for shrinkage. Maintenance of strength applies to the uninvolved side as well, since disuse atrophy from forced inactivity develops very rapidly.

Existing contractures must be treated intensively since both prosthetic and postprosthetic management are greatly complicated by the inability to extend the hip or the knee or both. Connective tissue exhibits prompt and progressive shortening when the opposing force is inactive for even a short time. These contractures are commonly resistant to usual stretching measures due to the absence of elastic fibers. However, the property of plasticity is present[5] and allows gradual elongation with moderate, prolonged stretching as obtained by utilizing the Thomas position with a moderate amount of weight applied to the end of the stump for a prolonged period. This is far superior to short periods of maximal manual stretch.

Adequate strength and balance usually are maintained satisfactorily by early institution of a gait-training program on crutches or stationary walker, if necessary. In the past, "rule of thumb" has been that a patient must be able to ambulate with a degree of agility for 200 feet as the measure of candidacy for a prosthesis. This is unreasonable in the geriatric amputee since he may need both crutches and prosthesis (four-point gait) for balance and safety. In addition, if exercise tolerance is limited, the 200-feet measuring unit may be completely unnecessary for the housewife who may travel a maximum of only 35 feet at any one time. The goals of the preprosthetic program, like all rehabilitation programs, must be related to the needs of the individual.

Prosthetic prescription or rejection of the patient for prosthetic replacement may be partially based on evaluation of response to the preprosthetic program. Obviously, those who are unable to complete this portion of the rehabilitation program are not candidates for prosthetic replacement. To subject all geriatric amputees to a standard program of preparation, fitting and training, however, ignores the uniqueness of each individual patient.

Pointing out that age alone cannot serve as a base criterion for medical management and health care, the authors discuss in detail an aggressive program for the management of the geriatric amputee. They state that with the addition of immediate post-surgical fitting in appropriate cases, the program will return the large majority of elderly, lower-extremity amputees to normal activity in the shortest time, with fewer complications and at the least overall cost to the patient. Dr. Allen is Associate Professor and Dr. Wolcott is Professor and Chairman, Department of Physical Medicine and Rehabilitation, University of Missouri School of Medicine.

Analysis of a group of geriatric amputees treated in our amputee clinic at the University of Missouri Medical Center indicates that the total-contact socket is a critical factor in the successful use of a prosthesis in this age group. Neither the below-knee nor above-knee subgroupings showed a significant difference in a comparison of full-time wearers to type of suspension.[6] It should be emphasized, in view of of our previous studies,[7] that suction or supracondylar suspension should not be withheld on the basis of chronologic age.

Our usual prescription for the above-knee amputee is as follows:

1. Total-contact, quadrilateral socket (plastic laminate).
2. Constant friction knee.
3. Single axis ankle, wood foot. (SACH [solid ankle, cushion heel] foot may be prescribed)

A hydra-cadence unit can be substituted for the knee and ankle units above (Fig. 1). Cost is a factor; however, dorsiflexion of the foot with knee flexion and controlled plantar flexion of the foot is often essential. In addition, there is an adjustable control of knee deceleration which may be desirable. Other types of knee joints and ankle joints are continually becoming avail-

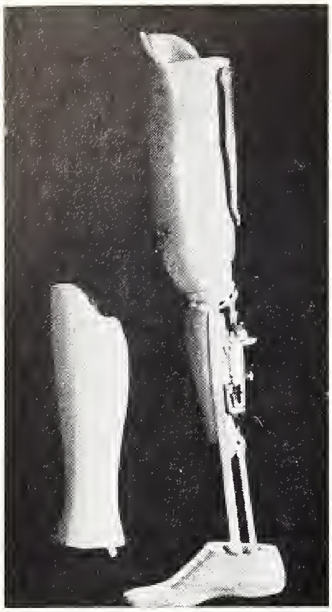

Fig. 1 Above-knee prosthesis; total-contact, quadrilateral socket; hydracadence unit. Cosmetic cover is shown at left.

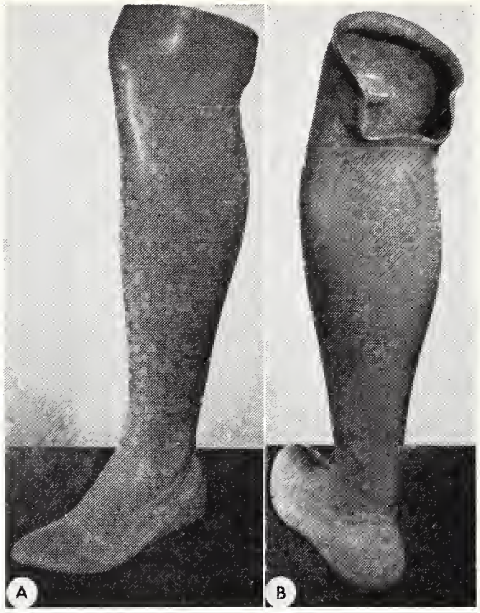

Fig. 2 Below-knee prosthesis; patellar tendon-bearing, total-contact socket; supracondylar suspension. (A) Front. (B) Back.

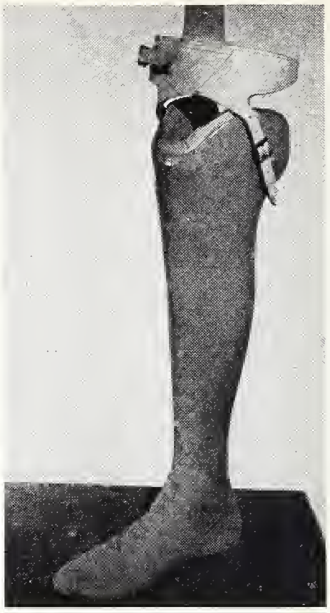

Fig. 3 Below-knee prosthesis; patellar tendon-bearing, total-contact socket; suprapatellar strap suspension.

able. No attempt will be made to list all of these.

Prescription for the below-knee prosthetic replacement is commonly as follows:

1. Patellar-tendon bearing, total contact socket, plastic laminate.
2. Supracondylar wedge or Suprapatellar strap suspension (Figs. 2 and 3).
3. SACH foot. It is our practice to prescribe the supracondylar suspension socket routinely.[8] The procedure for reducing the socket to a patellar tendon-bearing with suprapatellar strap suspension can always be carried out later if supracondylar suspension is unsatisfactory.

At final checkout, comfort, function and cosmesis are considered in that order.

A major effort in the restorative program must be devoted to teaching the patient to properly apply his prosthesis. It is this emphasis which allows the patient to utilize the newer suspension techniques, such as suction and supracondylar. The poor results so often cited in the literature, with these types of suspension, are due primarily to lack of training, inaccurate fitting or malalignment rather than an inherent incompatibility between the prosthesis and the geriatric amputee.

The postprosthetic program consists primarily of achieving functional independence. Vocational counseling, special training and job placement should be provided when indicated. It also must be impressed upon the patient that he will be an amputee for life and will need close follow-up for that period. The success of prosthetic replacement will, in a large part, be determined by adequate follow-up of the program for each individual amputee.

Experience with the geriatric amputee program in the Amputee Clinic at the University of Missouri Medical Center is summarized in Table 1. It should be pointed out that the rejection rate (21%) is much lower than most investigators report.[9] We feel however, that prosthetic rehabilitation is justified in this "borderline" group by the achievement of full-time use in 88% of the amputees fitted with a prosthesis. The additional 7% part-time wearers undoubtedly obtained substantial benefit from prosthetic replacement. As one observes the results in the below-knee amputees, even the existence of a "borderline" group could be questioned. Eighty-three per cent of the total below-knee amputees evaluated or, more pointedly, 91% of those who received prostheses are full-time wearers. Considering that eight of these are bilateral and the mean age is 71, the success in this group is even more striking.

LEVEL OF AMPUTATION

In spite of the advantages offered by recent developments in prosthetic design, components and fabrication, the greatly increased energy expenditure required to ambulate with an above-knee prosthesis significantly reduces his chances for successful outcome of the prosthetic program. The generally more successful rehabilitation of the below-knee amputee compared to the above-knee—88% vs 60% attaining functional independence (Table 1)—adequately emphasizes the importance of retaining the knee joint in this age group. Data at our institution indicate that only 8% of those patients more than 55 years of age undergoing primary below-knee amputation have subsequently required reamputation at a higher level. This figure is comparable to the incidence of reamputation reported by others.[10]

TABLE 1
SUMMARY
Geriatric Amputee Program
University of Missouri Medical Center

	A/K	*B/K*
No. of patients (men/women)	113 (79/84)	85 (61/24)
No. of patients fitted (%)	80 (71%)	78 (92%)
Mean age	68	71
Prosthetic suspension		
Suction[*]	39	
Pelvic band[*]	41	
Suprapatellar[†]		53
Supracondylar[†]		25
Daily use		
Full time	68	71
Part time	5	6
Non-wearer	7	1
Ambulatory status		
Functionally independent	48	69
Functional with assistance	25	8

[*] Quadrilateral, total-contact socket.
[†] Patellar tendon-bearing, total-contact socket.

Over the past few years, the archaic concept of above-knee amputation for practically all older patients with occlusive vascular disease, with or without diabetes mellitus, has undergone considerable modification resulting in a more conservative approach to the problem. Recent reports by Condon and Jordan,[11] Warren and Moseley,[12] Moore *et al*[13] and Sarmiento[14] have established that below-knee amputation can be successfully accomplished with 90% primary wound healing in spite of an absent popliteal pulse or, in many instances, even pulseless lower extremities. Experience locally would tend to support these findings. In one large survey of more than 300 patients[10] with *healed* below-knee amputations for occlusive vascular disease, only *one* patient required reamputation above the knee.

The increased functional potential of the below-knee amputee, especially true for the geriatric patient, should be a major consideration in the decision regarding level of amputation. However trite it may seem, it must be clearly stated that the best above-knee prosthesis perfectly fitted on a young, neuromuscular genius with expert gait training cannot substitute for the loss of the natural knee. In many instances, below-knee amputation is an essential factor in continuing functional independence and successful rehabilitation.

Immediate Postsurgical Fitting

Recently, a "new" technique in amputee management has gained gradually increasing popularity throughout the United States, namely, the immediate postsurgical fitting of a temporary prosthesis (Fig. 4). Actually, this method of management was an innovation by World War I French military surgeons and was revived by Berlemont[15] in 1958. Weiss[4] of Poland in 1964 reported his experiences with this method followed by Patel[16] in France in 1966. Then, several centers in the United States gained sufficient experience[11-14, 17] to indicate its acceptance as a relatively standard management program.

In general, the technique of immediate postsurgical fitting is carried out in the following manner. After the skin is closed over the stump, a strip of Telfa® is laid along the suture line. Sterile lamb's wool is then placed over the end of the stump, along the tibial crest and over the patella. Next, a special, expandable stump sock of correct size is pulled over the stump and held under tension. Over this, an elastic plaster of paris wrap is applied with even tension over the distal stump and carried up to mid-thigh. When this initial plaster wrap has set, a regular plaster of paris cast is applied to give added strength and to retain the waist strap and metal strips which attach to the adjustment jig. Length of the pylon is adjusted to the length of the remaining extremity.

Weight bearing with support is begun on the first postoperative day. Short periods of ambulation are allowed, under the supervision of the physician, within the first week. Either crutches or stationary walker are satisfactory for assisted ambulation during this period.

This entire method of management can be learned in a very short time. However, the critical factor is the close follow-up by physician,

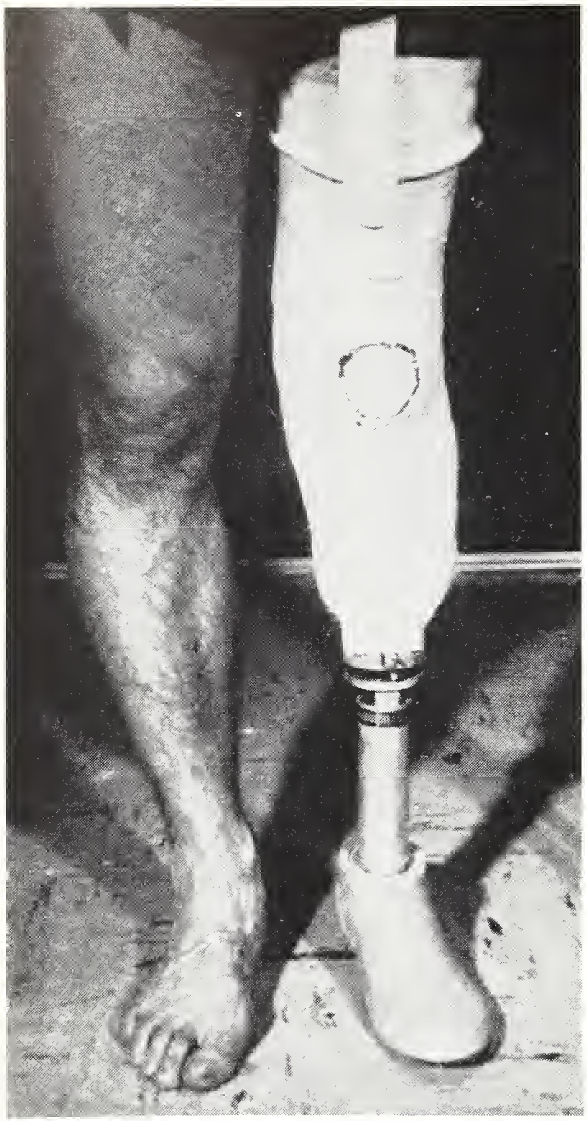

Fig. 4 Immediate postsurgical temporary prosthetic device.

therapist, prosthetist and nurse during the postoperative period. Employment of this technique without constant supervision and guidance will result in catastrophe.

The utilization of this regimen *prevents* the loss of basic skills for ambulation, the development of contractures, weakness and general deconditioning by avoiding prolonged inactivity. It also maintains a positive attitude toward the rehabilitation program by the patient and his family. Other significant benefits include a decrease in stump and phantom pain, decreased stump edema and the shortened period of restorative care and rehabilitation.

There appear to be no contraindications for the use of this technique, even for those patients for whom prosthetic replacement may be undecided. The benefits of this method in regard to edema, pain and other factors may be offered to all amputees. The decision regarding a definitive prosthetic rehabilitation program can be resolved subsequently.

Our amputee clinic team has now managed 30 geriatric, lower-extremity amputees with immediate postsurgical fitting. The etiology of amputation was occlusive vascular disease in 80%. The remaining 20% were a result of trauma, tumor or infection. There were 18 below-knee and 12 above-knee amputations.

Of the total group, there have been three failures in regard to primary wound healing; one above the knee and two below the knee. Ninety-three per cent of the group underwent the total sequence of this method of management with successful completion of their rehabilitation program. The average duration of the program from surgery to final check-out was five weeks for the below-knee amputees and eight weeks for the above-knee amputees. This is, indeed, a marked reduction in disability. If compared to the previous "standard" management, these patients would not have even started their preprosthetic program at the time they walked out of the hospital with their permanent prosthesis.

It is apparent that, with further experience, better training of personnel and the development of new components and fitting techniques, immediate postsurgical fitting will be the "standard" management program.

CONCLUSION

Experience with an aggressive program in the management of the geriatric amputee has convinced us that the degree of success rests on the following considerations:

1. A comprehensive rehabilitation program.
2. Preservation of the knee joint, if possible.
3. Provision of optimum prosthetic replacement.
4. Continuing care.

It should be apparent that these considerations apply to all lower amputees, regardless of chronological age. Thus, the differences in amputee management so frequently espoused in the literature would seem to reside in the minds of those who treat the geriatric amputee rather than in the amputee per se.

The program outlined above, with the addition of immediate postsurgical fitting in appropriate cases, will return the large majority of elderly, lower-extremity amputees to normal activity in the shortest time, with fewer complications and at the least overall cost to the patient

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Gout-Like X-rays

(Continued from page 229)

herniation of synovial membrane and synovial fluid into the bone where the protective cartilage layer has been lost because of erosion by pannus or degeneration or by herniation along vascular channels beyond the margin of the articular cartilage. The presence of excess fluid and intermittent high pressures within the joint contribute to the cyst formation. In time, these cysts may lose their connection with the joint cavities.[5] They present on x-ray as cystic areas in the bone and may become particularly large in weight-bearing joints.[8] Radiographs in various degrees of rotation of resected sections of bone in rheumatoid arthritis have shown that the cysts have ostii through with the abnormal synovial tissue has penetrated. Tissue sections of these cysts have verified that they contain synovium.[8]

SUMMARY

Seven physically-active men with rheumatoid arthritis who were seen at the University of Missouri Medical Center have had x-rays of joints strongly resembling gout. The probable explanation for this is that men with rheumatoid arthritis who are working in physically demanding occupations often have little or no osteoporosis, but frequently develop bone cysts. When these cysts, surrounded by well-calcified bone, occur in the great toe joint or other joints commonly involved in gout, the resemblance to gouty arthritis is particularly striking.

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21st Annual Dr. F. G. Thompson, Sr. Lectureship

The Thompson, Brumm & Knepper Clinic of St. Joseph announces that the 21st Annual Dr. F. G. Thompson, Sr. Lectureship will be given by Dr. E. Grey Dimond, Provost for the Health Sciences of the University of Missouri-Kansas City, at the St. Joseph County Club at 8 PM on May 13. The Lecture is entitled "Can We Produce Doctors Better and Faster?" Members of the medical profession are invited to attend.

JOHN N. LUKENS, M.D. ***and***
MARGARET R. MILES, R.N., M.N., ***Columbia***

Childhood Leukemia: Meeting the Needs of Patient and Family

THE MAJOR EFFORTS of the medical community are focused on patients with chronic illness. The student entering medicine soon learns that we are given the opportunity to cure disease infrequently. On the other hand, the responsibility to assist patients to live with diseases from which they one day will die confronts us daily. This is no less true for the physician on a large pediatric service than it is for the practitioner who cares for octogenarians. Next to accidents, malignant disease is the most common cause of death in children between one and 15 years of age in the United States. As infectious, nutritional and metabolic disorders are brought under control, it is likely that leukemia and other malignant conditions will assume even greater significance as causes for morbidity and mortality in the pediatric age group.

The physician who cares for the child with malignant disease has a responsibility not only to meet the medical needs of the patient, but to assist the child and family in their adjustment to a chronic, ultimately fatal illness. The enthusiasm associated with the manipulations of potentially effective drugs often is not balanced by efforts directed to the broader needs of the child and the child's family. In part, this results from uncertainty regarding the best way to assist the patient and family. The standard medical school curriculum fails to equip the graduating physician with a clear concept of the social needs of patients with terminal illnesses.

The Department of Pediatrics of the University of Missouri School of Medicine operates an active oncology service for children with leukemia and solid tumors. It has been necessary for the physicians and nurses who participate in this program to develop a philosophy for caring for children with malignant disease and their families. This paper presents the approach we have used in our attempt to provide integrated physical and emotional support for child and family. Since leukemia is the most common malignant condition of childhood, we shall use the child with acute leukemia as the prototype for this presentation.

Provision for the total care of the child with fatal disease requires the availability of personnel with a variety of interests and talents. For this reason, we have utilized a team approach. Each child on our unit has not one doctor or nurse, but many—a pediatric resident, a medical student, a hematology fellow, a nurse specializing in the care of children with chronic illness and a staff pediatric hematologist. The child and his family see all of these individuals on every visit to the hospital and each member of the "team" contributes something different. Insofar as is possible, all the members of the team are present for each discussion with the family. This is important if the management is to be integrated.

Because the needs of the child and his family vary during the course of the child's illness, we shall consider these needs at progressive stages in the child's course: at the time of diagnosis, during the weeks to years of drug-induced remission and during the final hours of life.

DIAGNOSIS: THE INITIAL DISCUSSION

Before the implications of a chronic illness are discussed with the child's family, it is imperative that the physicians be confident in the diagnosis. The specter of a fatal illness should not be raised if the nature of the child's illness is in doubt. Once the diagnosis is established, however, a clear and simple statement of the diagnosis and its prognostic implications must be made. This is best done in a quiet setting, which is protected from intrusion, with both parents present. This initial discussion must be more than a factual presentation of the anticipated sequence of events in the child's illness. True, some basic information about the disease and anticipated response to treatment must be reviewed. But the burning questions which must be spoken to are "Why" and "How" rather than

"What." "Why did *our* child develop leukemia . . . he has never been sick . . . he is a paragon of beauty and of health." "How are we to cope . . . how are we to command the strength necessary to endure and the power necessary to use?" There are no easy answers to these questions. Nevertheless, suggestions of a positive nature can be made which will sustain the family and assist them in their acceptance of tragedy. Herein lies the challenge of total care of the fatally ill child. Unless the needs of the family are met, the gains of drug effect may be swamped by the chaos of maladjustment and grief. In the initial discussion, questions which relate to the "What," "Why" and "How" of childhood leukemia are anticipated and suggestions are offered regarding how the needs of the child can best be met.

What: The Disease and Its Implications. It is important, initially, to stress the certainty of diagnosis and prognosis. To foster doubt regarding the precise nature of the disease is to prolong the suspense of uncertainty and to delay acceptance. "Leukemia in children is not a difficult diagnosis to make. All doctors who have reviewed the slides concur that your child has leukemia. There is no uncertainty about the diagnosis." Likewise, it is important to indicate the limitations of therapy at the present time. "There is no evidence that leukemia in man has ever been cured. Repeated investigations have failed to substantiate occasional claims of cure." Nevertheless, it is appropriate to give an honest appraisal of progress which is being made in cancer chemotherapy. "It is our hope that more effective modes of therapy will be found during the lifetime of your child." This realistic projection serves to lighten the despair of utter hopelessness.

A question foremost in the parent's thoughts relates to the expected duration of survival, "How long will he live?" While it may be tempting to quote statistics, a numerical response to this question may create anxiety out of proportion to the small gain of immediate reassurance. The figures one might use are averages or means. But the question relates to a particular child, not an "average" child. The truth of the matter is that we do not know the life expectancy of a given leukemic child at the time of diagnosis. Although there are features which tend to portend a relatively favorable or a relatively poor prognosis, our predictions lack precision and confidence. The child with leukemia may live only hours or he may survive free of apparent disease for many years. If the child does not live as long as predicted, the family members feel they have been denied time which should have been theirs. The child who does better than the "average" child is regarded by his parents as living on borrowed time. Somehow the parents must cultivate a myopic consideration of the future. "Be thankful for this day and for the health which your child enjoys this day. We have little control over his health tomorrow." Remarkably, parents and their leukemic children do find it possible to live in day-tight compartments.

Occasionally, parents react to the diagnosis with skepticism or with frank hostility. They are understandably reluctant to accept a harsh diagnosis from a group of physicians whose professional credentials they cannot evaluate. Further consultation should be obtained if requested, but the parents must be cautioned that a pilgrimage in search for a cure is not in the best interests of the child or of the family. They must be assured of the interest and competence of the professional team which assumes responsibility for their child. The fruits of research efforts will be incorporated into the therapeutic plan for their child. Our oncology unit is a participating member of one of the national chemotherapy study groups (Acute Leukemia Group B). We met with other members of the group at three-month intervals in order to review the status of present chemotherapeutic programs and to design protocols

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Care of the child with a fatal illness and support of his family require the integrated efforts of physicians, nurses and other professional personnel. This paper describes the approach to the integrated management of child and family which is used by members of the Hematology and Oncology Division of the Department of Pediatrics at the University of Missouri. The problems encountered by leukemic children and their families are outlined and suggestions for meeting these problems are offered. The goal of management is discussed in the perspective of its meaning for patient, family and community. Dr. Lukens is Assistant Professor of Pediatrics and Mrs. Miles is Clinical Specialist and Assistant Professor of Pediatric Nursing at the University of Missouri Medical Center.

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which will evaluate new drugs and new ways of using old drugs. Many of our patients are entered into these protocols with the full understanding and cooperation of their parents. More effective means of controlling leukemia have resulted from these national and international cooperative studies. As this information is collected, it is not kept in obscurity, but made available to the entire medical profession.

The family also is warned of the existence of unproved methods of treatment. If the parents are solicited through the mail by a group which advertises cure, they are encouraged to share this information with us. If the mode of therapy is not clear, we seek further information from the treatment "clinic" and from the American Cancer Society, which has maintained an active interest in evaluation of unproved methods of treatment. We encourage parents to bring to our attention newspaper clippings and radio announcements which relate to leukemia and about which they have questions. A brief explanation of the events surrounding a news item is often sufficient to separate fact from sensationalism.

Another feature of the disease which deserves comment is its lack of significance for the health of other family members. With few exceptions, the incidence of leukemia among siblings and parents of children with acute leukemia is not increased. Thus, the parents should be reassured about the genetic and infectious implications of this illness for their family. Although experimental evidence suggests that a viral agent may be involved in leukemogenesis, abundant epidemiologic data indicate that the disease is not transmitted as a communicable infection.

Why: Removal of Guilt. In an attempt to find a cause for their child's illness, parents often hold themselves or their families responsible. In some unidentified fashion, they fear that they have failed to provide for the health, safety and and development of their child. Exhausted by guilt, their effectiveness in meeting the needs of the family is compromised. Since these feelings of inadequacy may not be expressed, it is important to pull them out into the open and examine them. In reality, children who develop leukemia have been smiled upon by society. For unknown reasons, leukemia in children is a disease of upper and middle socioeconomic groups.[1] The best of medical care and environmental protection has been theirs. We do not know why some children contract leukemia and others do not. With rare exceptions, we know of nothing in the child's environment or in his genetic constitution which rendered him vulnerable. Moreover, even if we had been able to identify the preleukemic state, we should not have been able to prevent the disease. No person or experience or factor is to be held responsible. The family should be reassured about the consequences of a delay which may have existed between onset of symptoms and confirmation of diagnosis. The type of treatment and anticipated response would not have been different had the diagnosis been made sooner.

How: Overcoming Adversity. In the initial discussion, the parents must be presented with more than the factual information outlined above; they must be challenged to overcome the suffering at hand. They must give thought to how they can best meet the needs of a child who will leave the hospital ostensibly well. It is not possible to anticipate all the questions that may arise as parents seek to do what is best for their child. Nevertheless, general recommendations can be made. We propose that our joint purpose should be to provide for the child as normal a life as possible for as long as possible. This general statement of purpose has a number of implications.

First, the child should be given no special privileges. The limits of right and wrong and the methods for correction must be no different from those to which the child has been accustomed. A child indulged because of his illness is denied a "normal" childhood. Grandparents experience greater difficulty than parents in maintaining permissible limits of conduct. It is not unusual to observe regressive behavior after our patients have visited grandparents. There are two exceptions which we make to the general policy of denial of special privileges. One has to do with food, the other with activity. Since some of the drugs we use compromise and others stimulate the appetite, we ask that the child be permitted to decide how much he is to eat. At times when the appetite is dampened, the child should not be forced to clean his plate, if this has been the family custom; at other times, snacking between meals must be permitted. Likewise, the optimal extent of participation in physical activities may be difficult to anticipate. Again, we believe that the child is the best judge in regard to permissible limits of exercise. The temptation to encourage "rest" because of an occult disease must be suppressed. On the other hand, the child should be permitted to engage himself in sedentary pastimes if this is his wish. Both treatment and variations in the control of disease modify exercise tolerance.

Not only must the customary relationship between parent and child be preserved, but the same relationship between community and child must be maintained. Once knowledge of the diagnosis is disseminated, it becomes difficult for the child to enjoy "as normal a life as possible" in school, church and neighborhood. For this reason, we encourage parents to restrict the nucleus of individuals in whom they confide. To be sure, some must be told if the needs of the family are to be met—the family's pastor, immediate family, trusted friend, school teacher. The number of confidants needs to be restricted, however, if the child's interests are to be protected.

What should the child be told regarding his disease? The child's interest in learning about his disease and his ability to understand the significance of its chronicity will be determined by age. Whatever his age, we encourage parents to answer their children's questions honestly at a level that can be understood by the child. The attitude of the young child (less than eight to ten years) toward his disease is largely determined by parental attitudes. What is said is not so important as the extent to which the question and its answer reflect anxiety and fear on the one hand or reassurance on the other. The young child voices concern primarily about procedures which are potentially painful and about hospitalizations which impose separation from family. The young child rarely personalizes death—death is viewed with curiosity rather than with anxiety. For this reason, we believe that it serves no useful purpose to discuss with young children the eventual consquences of their disease. They are not prepared to use this information. For them, "as normal a life as possible" means that their questions will be answered with honesty and with reassurance; it also means that it is best not to discuss the deeper implications read into their questions by the adult mind. To the child's question, "Will I die?" the parent responds, "Yes, just as we shall all die someday. But you are getting medicine now so that you will be better."

The older child presents a greater challenge with respect to the extent to which his illness should be discussed. Eloquent discussions have been recorded by those who advocate avoidance of the subject[2, 3] as well as by those who recommend open communication.[4, 5] Unfortunately, solid data are difficult to discern among anecdotal experience and prejudice. We believe that most, if not all, adolescent and preadolescent children recognize the serious nature of their illness at some time during the course of disease. If the older child is hospitalized for long periods of time on a ward for leukemic children, it is natural that symptoms, signs and treatments will be identified with other children on the ward. The full spectrum of leukemia from diagnosis to remission to relapse surrounds him, and he is impressed with the seriousness of the disease from the outset. On the other hand, the child who receives his care in a general pediatric or a general hematology clinic may progress further into his disease before he becomes anxious about its ultimate course. In the early months or years of his illness, a simple physiologic explanation of deficient red blood cell production or excessive leukocyte accumulation may be sufficient to satisfy his curiosity. Once the child suspects the ultimate nature of his disease, however, it serves no useful purpose to deny the obvious. For him, "as normal a life as possible" means that he be given the opportunity to maintain the same degree of honesty and openness with parents and physicians that he has always enjoyed. Denial fosters greater anxiety and loneliness. The adolescent is sufficiently mature to deserve and to profit from opportunities to discuss concerns, frustrations, hopes and plans. We believe, then, that the implications of his disease should be discussed with the adolescent as he expresses interest in learning more about himself. In keeping with a mutual trust they have always shared, some parents want to relate the information themselves; others have asked that we talk with the patient. It generally is not difficult to identify when in the course of the disease this discussion should take place. The child may indicate his need in response to regular invitations to share questions or concerns. He may react to procedures or to hospitalization with anxiety out of proportion to what is considered appropriate, or his behavior may appear deviant in other respects. Such reactions should be looked upon as indications of underlying fear and anxiety. The patient's questions require honest responses. However, his situation should not be cast as utterly hopeless. "So long as there is life there is hope. We are using these drugs with the hope that they will control the growth of leukemic cells and permit you to return to a full life. And there is the hope that more effective drugs will become available during your lifetime."

THE INTERIM PERIOD

During the interim period, that time between diagnosis and the terminal phase of the disease, the parents' need for assistance, guidance and understanding continues. Their regular visits to the clinic provide an opportunity for us to assist parents with their continuing adjustment and to cultivate a relationship of trust with the child. Continuity of care is assured by the same nucleus of physicians and nurses who directed therapy during the initial days or weeks of the illness. In addition, children and their families come to know the clinic personnel.

During this period, every effort is made to keep the child out of the hospital. Therapy is directed from the outpatient clinic rather than from the inpatient service. Clinic visits are made as leisurely and as pleasant as possible. Parents are encouraged to remain with their children during procedures (bone marrow aspirations, intravenous and intrathecal injections, blood transfusions). This affords security for the child and a sense of participation in the care of the child for the parent. Following evaluation of the child and his blood work, the child's status is discussed with the parent and, if appropriate, with the patient. They are alerted to the possible side effects of the drugs being used and advised regarding precautions (if any) which should be exercised before the next visit. Parents are encouraged to notify the medical team at any time a change in the child's status is suspected. Projected plans are discussed so that the parent can answer the child's questions about the next clinic visit with honesty and confidence. Questions are encouraged. Those that pertain to the child and his disease are answered in sufficient detail to enhance understanding without arousing new or unnecessary fears. Those that relate to family plans are answered in the context of our joint responsibility "to provide as normal a life as possible." This means that previously established life styles should be continued insofar as is possible. For instance, if the proposed visit to Disneyland reflects a change in plans occasioned by the child's disease, the family should be encouraged instead to proceed with their customary vacation plans.

In order to understand the needs and reactions of parents to their child's illness, it is helpful for the professional team to recognize patterns of behavior which help the parent cope with adversity. These coping behaviors[6] should be viewed as healthy and necessary. When used to excess, however, they may interfere with medical management and compromise the parent's ability to function normally or to meet the needs of the child. The coping patterns we have observed in the parents of our patients have been described by others.[6–9] The parent with isolation of affect intellectually recognizes the events of the illness but is unable to respond with appropriate emotional involvement.[6] This parent tends to view his child's illness with objectivity and to seek detailed information about the disease and its treatment.

Most parents use denial in one form or another throughout their child's illness. Denial may be detected beneath the guise of hope—hope for a cure despite objective evidence of deterioration. A more intensive use of denial renders acceptance of ultimate failure impossible. The mother of a five-year-old girl recently was counseled about the serious state of her child's illness and the advisability of initiating treatment with an investigational drug. She did not hesitate to grant permission for use of the drug, but asked that we test the daughter's intelligence during the hospital stay so that she could plan for her future schooling needs.

Intellectualization[7] is a coping reaction that can easily become annoying to medical personnel unless it is understood. The father of the above-mentioned five-year-old girl became increasingly knowledgeable about his daughter's illness. He requested detailed information about her symptoms, drug therapy and procedures. He identified with the doctors and often said, inappropriately, "I'm almost a doctor. I know so much." One day when we let him turn off his daughter's intravenous drip, he elatedly commented, "This makes me feel powerful. It makes me almost feel like a doctor." This statement revealed his need to overcome feelings of helplessness by intellectualization and identification with more powerful and knowledgeable figures.

Other coping strategies that we have observed and that have been observed by others included the use of religion, increased motor activity, search for a meaning, withdrawal and idealization of the child.

THE FINAL ILLNESS

The greatest frustrations for family and professional personnel are experienced as the child enters the final irreversible phase of his illness. Confrontation with progressive disease is offensive, and expectations for significant physical gains are no longer realistic. As a result, the child and family are likely to find themselves abandoned by those who feel they no longer have anything to offer. Yet, at no time during the long illness does the family need the availability of the medical staff more than at this time. The physician must be available to both the child and parents.

As the end approaches, it becomes increasingly important to assess the parents' ability to participate in the care of their child. Some parents are able to continue their involvement in the child's physical needs and to support the child through traumatic procedures. We encourage these parents to stay with their child. At the same time, it is important to see that they have relief from their bedside vigil and to encourage them not to ignore the needs of other family members. As death approaches, the parents are encouraged to remain with the child. A friend, nurse or physician also should be present.

Some parents are unable to assist with the care of their dying child or to be with him for extended periods of time. There are many reasons for this response.[10] Some may be so threatened by the impending loss that they cannot face the child or they may fear being in the room alone with him when he dies. On the other hand, the parents may have begun to gradually detach themselves from the child, a normal part of anticipatory grief. Other parents have so many burdens with which to cope at home that they are not able, physically or emotionally, to visit the child frequently. Whatever the reason for their response, it is important that nurses and medical staff be nonjudgmental about their absence from the child's bedside and attempt to make the visits as meaningful as possible for both the child and parents.

All parents need to be assured that the child continues to receive the best of medical and nursing care. We have adopted the policy of continuing some form of treatment to the end. Should parent or patient recognize the withdrawal of fluids, antibiotics or other drugs, the sense of abandonment and hopelessness may be intensified. Narcotics and sedatives are used with sufficient liberty to guarantee relative comfort and rest. We have not hesitated to induce near-continuous sleep in the face of severe pain with combinations of demerol, thorazine and phenergan administered intravenously. As death approaches, however, it should be accompanied by peace and should not be intruded upon by last-minute heroics.

For the family, death of the child presents a new complex of challenges. In an effort to assist the family in meeting the life to which they return, we maintain contact with them during the months following death of the child. The parents are encouraged to return one to two months after the child has died so that they may share with us their questions and concerns and so that we may review with them significant observations made at the time of the postmortem examination. We also seek to provide them with counsel, either through interview or correspondence. They are encouraged to express grief rather than repress it. They are reminded that as members of a select group of parents who have experienced inordinate adversity, they are in an unusual position to understand the needs of parents who must follow them. Recognizing their enhanced capacity to help others, some parents have volunteered their availability to us in helping to meet the needs of other families. They share insights not vouchsafed to those who are not members of their fellowship.

The medical team which is intimately involved with fatal illness in children is rewarded by its association with parents who have surmounted unusual adversity. Suffering never leaves a person the same. Wounds and scars may be crippling, but they may be used, on the other hand, for exceptional strength. Provocation of parent and patient to use rather than to submit to suffering remains one of our greatest challenges.

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Management of Spontaneous Pneumothorax in The College-Age Patient

A 21-Year Study

Resolution of the confusion, disagreement and indecision in the management of spontaneous pneumothorax is a goal worthy of any publication on this subject. Despite the improbability of attaining these ends, this report concerns itself with experiences gained during a 21-year period at the University of Missouri Student Health Service.

Through a series of letters and questionnaires to the 72 patients involved in this study, it has been possible to follow more than half of these pneumothorax cases for ten years or longer. Eight cases have been followed for over 17 years. We know of no similar study with this length of follow-up.

Several obvious questions arise. Do general rules for the management of spontaneous pneumothorax apply uniformly to the college-age patient population? Does a prolonged period of follow-up alter one's initial concept of the need for radical management of these patients? Does the frequency of recurrent pneumothorax episodes prompt an alteration in the primary treatment of patients in this age group? At what point in time are recurrences likely to be experienced?

Method and Materials

Seventy-two cases of spontaneous pneumothorax were diagnosed at the University of Missouri Student Health Service in Columbia from 1949 through 1969. All diagnoses were verified by radiographic means, and a percent of lung collapse in each case was estimated by the radiologist. Medical records of each patient were examined retrospectively in order to determine (1) nature of onset, (2) method of treatment, (3) length of hospital stay (if any), (4) complications of treatment and (5) evidence of recurrence.

In a series of three questionnaires mailed to these patients during the past ten years, efforts were made to obtain evidence of subsequent recurrences. While some of these patients have been followed 21 years, almost 50% have been followed more than ten years since their original pneumothorax.

Results

From 1949 through 1969, a total of 72 patients were treated for spontaneous pneumothorax at the Student Health Service of the University of Missouri-Columbia. During this time, enrollment at the University on the Columbia campus has risen from approximately 12,000 to more than 21,000 students. The majority of patients (60) were between 18 and 24 years of age. Only two patients were over 30 years old, and all but eight were men. There is an equal distribution between occurrences on the right and left sides. In one instance a simultaneous bilateral pneumothorax occurred, and in two cases a second episode of pneumothorax was experienced on the opposite side. The majority of patients had no other demonstrable pulmonary pathology, although healed histoplasmosis was suspected in three instances. No common denominator is obvious as a major precipitating factor. About 25% of these patients reported onset of pain during some form of strenuous activity. Of some interest is a history of spontaneous pneumothorax in a parent or sibling in six instances.

Throughout the period of this study, bed rest has been the usual method of management during the initial pneumothorax episode. Gradual natural resorption was allowed in 66 cases. Fifty-six per cent of all cases were kept at bed rest for five or fewer days. Six students were treated as ambulatory cases, and only six others, all men, were treated in a more definitive fashion, i.e., three required closed tube thoracotomy and three received thoracentesis.

Recurrent pneumothorax, occurring either in the student's remaining time at the University or in subsequent years, was experienced by 15 patients (20% of the entire group). Of these, eight had more than one additional episode of pneumothorax, and a subsequent pleurodesis was performed in two cases. The interval between original pneumothorax and recurrence varies considerably, although nine recurrences (60% of total number) were within the first year. One occurrence happened within seven months, but this patient has had no further difficulty after 20 years. Among the eight patients with at least one second recurrence, the interval varies between two months and 14 years, the majority of second recurrences being recorded in less than nine months. One patient has had three recurrences and one has had four, but neither has had surgery according to follow-up letters.

Discussion

Increasing emphasis upon a more aggressive approach to the management of spontaneous pneumothorax during the past decade has prompted us to review our experience with such cases at the University of Missouri Student Health Service. Based upon clinical response of a rather select college-age population, a relatively conservative course of treatment has been elected. Evaluation of such management must involve a critical look at the results gained from a course of bed rest or continued ambulatory activity.

The majority of students who experience spontaneous pneumothorax give evidence indicating no appreciable degree of cardiorespiratory embarrassment. Many do not report to the Student Health Service until 12 to 24 hours after onset of symptoms. Within recent years, most patients have continued to attend classes after it becomes established that the air leak is closed and the chest has become stabilized. The subsequent course of these ambulatory patients does not differ from that experienced by those who elect a less active period of convalescence.

Our findings lend credibility to the suggestion that the college-age patient with spontaneous pneumothorax follows a somewhat different clinical course from that of the older patient and, therefore, is properly treated more conservatively and without operative intervention in the majority of cases. Kukral and Cerilli[1] report a series of 100 cases of spontaneous pneumothorax gathered from private practice, a veterans' hospital and a large medical center. Their population possesses a mean age of 40.8 years, and only 23% of these patients responded favorably to simple observation. Seremetis[2] recently reported a recurrence rate of 49% among a group of 44 pneumothorax patients managed with bed rest, a recurrence rate of 40% among 29 patients treated with bed rest and subsequent closed tube thoracotomy and a recurrence rate of 38% among 81 patients treated immediately with tube thoracotomy. No mention is made of the follow-up period.

This study, which involves the management of 72 cases of spontaneous pneumothorax at the Student Health Service of the University of Missouri-Columbia, spans 21 years and is believed by the authors to be the only study of its kind based upon follow-up of this time duration. Resulting observations and experiences are reported. The authors are from the University School of Medicine where Mr. Morris is Instructor in Physical Medicine and Rehabilitation, Dr. Stephenson is Professor of Surgery, Dr. Roark is Special Resident Fellow in Psychiatry, Dr. Brukardt is Associate Director of Student Health Service and Dr. Waggoner is Clinical Associate Professor of Radiology.

In contrast to our population of 72 students in which almost no predisposing pulmonary pathology was demonstrated, Vogt-Moykopf and Haiderer[3] found evidence of associated pulmonary disease in all but 29 of their 70 cases. Included are such entities as pneumonia, tuberculosis, bronchial asthma, emphysema, lung cyst, lung abscess, silicosis and mediastinal tumor. Whereas 80% of this group experienced total collapse of the lung, 75% of our student population had lung collapse of 50% or less. (In fact, almost half had only 30% collapse or less.) The low incidence of recurrence in the present series (20% as compared with up to 60% in other groups) probably reflects the lack of major underlying pulmonary pathology among our student population rather than any benefit unique to conservative treatment. Aggressive treatment of the initial episode usually is associated with lower recurrence rate in the older age groups.

In further contrast to our population of 72 patients treated at the Student Health Service, during the past 14 years approximately 150 patients have been received at the University of Missouri Medical Center with diagnosis upon admission of pneumothorax, spontaneous or traumatic in origin. Because of the incidence of air leaks, cardiorespiratory embarrassment or tension pneumothorax in a group of older patients with a relatively high prevalence of emphysema and other chronic lung diseases, closed tube thoracotomy has been the initial and immediate method of management. One or two recurrences usually prompts a recommendation for pleurodesis. This experience closely parallels that registered in other medical centers.

CONCLUSION

Our 21-year experience in the management of spontaneous pneumothorax among 72 patients of a college-age population has led to the following observations:

1. Bed rest (with limited ambulatory privileges) has been the treatment of choice among this restricted patient group in nearly all cases and is found to be associated with a minimal number of complications.
2. The majority of these patients present with between 15% and 30% collapse, and they tolerate the pneumothorax with a minimum of discomfort.
3. Some patients can be followed on an ambulatory basis.
4. Total collapse and primary or secondary tension pneumothorax are rare.
5. More than 95% of these patients achieve complete lung reexpansion after a conservative course of treatment.
6. Needle or catheter aspiration or closed tube thoracotomy or both are indicated in the patient with (a) increasing lung collapse, (b) initial collapse or more than 50% to 60%, (c) evidence of tension pneumothorax with mediastinal shift, (d) considerable dyspnea and (e) suspicion of hemopneumothorax.
7. All cases probably should be examined and evaluated by a thoracic surgeon.
8. Frequent repeat films should be taken until complete lung reexpansion is demonstrated.
9. A recurrence rate of approximately 20% may be expected following conservative treatment among patients comprising this cohort if a prolonged follow-up is undertaken.

SUMMARY

A 21-year study involving the management of 72 cases of spontaneous pneumothorax at the Student Health Service of the University of Missouri-Coulmbia is reported. All but six patients were treated with bed rest or early ambulation. Fifteen patients (20%) experienced a second pneumothorax and most recurrences appeared within the first year after treatment. Radical management, involving thoracentesis or closed tube thoracotomy, is often indicated in the general population, but is not the rule of management for patients in this restricted group.

In the majority of cases, a conservative approach involving bed rest and observation is justified. The college student tolerates his pneumothorax well, often continues to attend classes during convalescence and experiences a lower incidence of recurrence than does the older patient. Lack of predisposing or concomitant pulmonary pathology is thought to render the college-age patient with spontaneous pneumothorax less subject to recurrence and more amenable to conservative management than his counterpart among older age groups.

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Eighth Annual Pediatric Seminar

The Eighth Annual Pediatric Seminar on *Adolescence* will be held at the Baptist Memorial Hospital, 6601 Rockhill Road, in Kansas City at 8 PM on May 15. The lecturer will be Dr. Jerome T. Y. Shen, assistant clinical professor, St. Louis University Medical School, who is a member of the Missouri Committee of the 1970 White House Conference on Children and Youth. He is chairman of the Committee on Youth, Missouri Chapter of American Academy of Pediatrics, and the Committee on the Care of Adolescents in Private Practice, Society for Adolescent Medicine. Registration fee is $25.00.

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Thyroid Carcinoma

CARCINOMA OF THE THYROID GLAND is potentially as lethal as any other malignant neoplasm. Its clinical manifestations are quite variable, however, and the tumor is characterized by markedly diversified growth patterns and biological characteristics. Because the well-differentiated (papillary and follicular) variants are relatively non-aggressive in their behavior, the propensity of thyroid carcinoma to metastasize and to produce death is underestimated frequently. As a consequence, concepts of therapy also are highly diverse and quite controversial.

This report consists of a retrospective study of patients treated for thyroid carcinoma in the University of Missouri-Columbia Medical Center since its activation. During the period from 1958 to 1968, 478 patients underwent surgical removal of the thyroid gland. Malignancy was discovered in 52, or 10.8%, of these patients. The patients ranged in age from ten to 89 (Table 1) and included 22 males and 30 females.

TABLE 1

Age	Number of Patients MALE	 FEMALE
0-9	0	0
10-19	4	2
20-29	1	5
30-39	1	4
40-49	5	3
50-59	1	4
60-69	6	6
70-79	2	3
80-89	2	3
Total	22 (42.3%)	30 (57.7%)

HISTOLOGICAL CLASSIFICATION

Malignant tumors of the thyroid gland are classified in this institution as follows: (1) papillary, (2) follicular, (3) undifferentiated (those with no follicles or papillations including small cell, giant cell and medullary) and (4) lymphomas (includes lymphosarcoma, reticulum cell sarcoma and Hodgkin's disease). The number of patients in each group is shown in Table 2. Histologic diagnoses were made by members of the staff of our Department of Pathology and were based upon a review of surgical specimens and of autopsy or outside biopsy material when available.

TABLE 2

HISTOLOGIC TYPE OF THYROID NEOPLASM

Type	*Male*	*Female*	
Papillary	11	14	25 (48%)
Follicular	5	6	11 (21%)
Undifferentiated	6	9	15 (29%)
Reticulum cell sarcoma	0	1	1 (2%)
Total	22	30	52 (100%)

CLINICAL MANIFESTATIONS

A neck mass was the most frequent presenting symptom and was observed in 80.8% of the patients. The mass had been known to be present for periods ranging from one month to 12 years prior to admission. Rapid increase in size or additional symptoms such as pain, dysphagia, hoarseness, dyspnea or hemoptysis ultimately caused the patient to focus his attention on the mass and brought him to the hospital. In two instances, pathologic fracture of the femur was the first indication of illness. Table 3 shows the relative incidence of the most common symptoms.

TABLE 3

PRESENTING COMPLAINT*

	No.	%
Neck mass	42	80.8
Hoarseness	8	15.0
Dysphagia	5	10.0
Dyspnea	3	6.0
Pain	3	6.0
Hemoptysis	2	4.0
Metastasis	2	4.0

* Some patients had multiple presenting complaints.

Thirty-six patients had a palpable mass on admission. Six others presenting with palpable masses had received initial diagnoses or treatment elsewhere and were referred because of residual or recurrent disease. Seven patients stated that "benign goiters" had been present for long periods of time before the diagnosis of malignancy was made. Two of these seven had been diagnosed clinically as having thyroiditis. One other patient had undergone subtotal thyroidectomy for hyperthyroidism 21 years prior to admission and simple excision of what was thought to be cystadenoma of the thyroid eight years before being referred to us with papillary carcinoma of the thyroid.

Three male patients, aged ten, 14 and 18, respectively, are of particular interest. Each of these youngsters had received external irradiation to the head and neck region during childhood for benign diseases. The radiation exposure occurred eight to 11 years prior to the development of thyroid malignancy. Unfortunately, records of radiation dosage were not available to us. All three developed papillary carcinoma, one of which was definitely multifocal.

Treatment

Fifty-one operations, ten of which consisted only of biopsies (Table 4), were performed on the 52 patients. One elderly, poor-risk patient was subjected to block excision only of a large cervical mass which proved to be metastatic papillary carcinoma. Diagnosis was made at autopsy in the one remaining patient. Eight patients had unresectable tumors and, after the diagnosis was established by biopsy, received palliative external radiation therapy. Four patients received radiation therapy following initial surgical therapy. Seven patients received I^{131} to ablate residual thyroid tissue or metastases after total thyroidectomy. Distant metastases usually were managed with external radiation or I^{131}; in two instances, surgically accessible local or regional recurrences were removed surgically at secondary operations.

TABLE 4

TYPE OF OPERATION

	Number
Biopsy only	10
Block excision—cervical metastases	1
Lobectomy, unilateral	8
With radical neck	8
Subtotal, bilateral	5
With radical neck	1
Total thyroidectomy	7
With radical neck	7
Lobectomy and contralateral subtotal	2
With radical neck	2
None (autopsy diagnosis)	1
Total	52

Results

Twenty-five patients were treated during the period 1958-1963, and their records were available for five-year followup study. As shown in Table 5, survival was best in those with papillary carcinoma (78%), next best in patients with the follicular variety (62.5%) and poorest in the undifferentiated group (12.5%). One patient with a reticulum cell sarcoma of the thyroid survived less than one month after diagnosis. In this series, none of the patients died as a direct result of treatment.

TABLE 5

FIVE-YEAR SURVIVAL
(25 Patients)

	No. Treated	*No. Survived*
Papillary	9	7 (78.0%)
Follicular	8	5 (62.5%)
Undifferentiated	8	1 (12.5%)
Other	0	0 (0.0%)
Total	25	13 (52.0%)

Multifocal sites of origin of carcinoma were detected in ten of the 52 patients (19%) as the result of routine microscopic studies. Special serial-section studies were not employed. Seven of these patients had papillary carcinoma, two had undifferentiated carcinoma and one had reticulum cell sarcoma.

The five-year survival of surgically treated patients with papillary or follicular carcinoma and metastatic tumor confined to regional lymph nodes was surprisingly good. Six of the seven patients (86%) with papillary carcinoma in this category survived. Both patients with *follicular* carcinoma metastatic only to regional lymph nodes survived five years. None of the three patients with *undifferentiated* carcinoma and positive lymph nodes survived five years.

As might be anticipated, the presence or absence of distant metastatic disease at the time of initial examination was of greater prognostic importance. Distant metastases, ten (66%) of which were pulmonary, were observed in 15 of the 52 patients. They were discovered at the time of initial examination in 11 of the patients. Survival time ranged from zero months to seven years after the discovery of distant disease. Five-year survival was very good (87.5%) in patients with papillary carcinoma without demonstrable distant metastases. Only one of the nine patients treated for papillary lesions during the 1958-1963 period had demonstrable distant metastatic disease, and this patient died one month after diagnosis. Three of the four patients with follicular carcinoma without initially identifiable distant metastases lived five years, whereas only two of four with initially identified distant metastases lived five years. One of the four patients with undifferentiated carcinoma without initially demonstrable metastatic disease survived for five years (25%). None of the four other patients who did present initially with distant metastases survived. The total survival time after diagnoses of patients dying of carcinoma of the thyroid was shortest in patients with advanced undifferentiated carcinoma and longest in those with early papillary carcinoma.

During the past five years, total thyroidectomy, supplemented when indicated by postoperative I^{131} therapy, has been employed with increasing frequency for follicular and papillary carcinoma. Our data do not permit a valid comparison of this program of therapy with less aggressive surgical procedures at this time.

Eight of the 52 patients received radiation therapy as the principal modality of treatment. All eight had undifferentiated carcinoma and only one patient lived more than seven months after diagnosis. This patient is still living, free from disease, three years after receiving 5,000 rads external radiation and 100 mc of I^{131}.

COMPLICATIONS OF TREATMENT

Fifteen of 41 (36.6%) patients who underwent a definitive operative procedure for cure or palliation had complications which could be attributed to the operation (Table 6). Clinical and laboratory evidence of hypocalcemia was manifested in the early postoperative period in five patients (12%). Three patients recovered function promptly, another required therapy more than one year but ultimately recovered parathyroid function, and one has permanent hypoparathyroidism (2.5%).

Three patients had transient hoarseness after operation, but only one of these patients had demonstrable unilateral vocal cord paralysis and recovered. Two patients who had cord paralysis prior to treatment showed no change subsequently.

A retrospective study of patients treated for thyroid carcinoma in the University of Missouri-Columbia Medical Center during the first decade of its existence. It is anticipated that this review of experience will provide a basis for continuing studies of these interesting lesions. Dr. Nichols, a Resident Physician, is currently serving in Viet Nam as a Captain, USAF(MC). Dr. DeWeese is Professor of Surgery and Chairman of the Department at the Medical Center.

Dysfunction of nerves other than the recurrent was observed in two patients. One occurred in a patient with follicular neoplasm which extended intrathoracically. Postoperatively, she was found by chest roentgenogram to have a phrenic nerve injury. Another patient had paralysis of the ramus mandibularis nerve subsequent to a radical neck dissection on the ipsilateral side.

DISCUSSION

Data from a recent report[1] indicate that the incidence of carcinoma of the thyroid apparent-

TABLE 6

COMPLICATIONS FOLLOWING 40 OPERATIONS

	Operation		
Complication	LOBECTOMY (16)	LOBECTOMY & SUBTOTAL (10)	TOTAL THYROIDECTOMY (14)
Hypoparathyroidism:			
Transient	0	0	3
Prolonged—recovered	0	0	1
Permanent	0	0	1
Recurrent nerve palsy (unilateral):			
Transient	0	1	0
Permanent[*]	0	0	0
Hematoma	1	1	1
Abscess	0	0	1
Hemorrhage	1	0	0
Phrenic nerve palsy[†]	1	0	0
Ramus mandibularis palsy[‡]	0	0	1

[*] Two additional patients had pre-existent palsy due to cancer.
[†] Intrathoracic extension.
[‡] Occurred with radical neck dissection.

ly is increasing. The reported incidence rates vary from 6.4%[2] to 10% of thyroid specimens. No patients were treated for carcinoma of the thyroid in this hospital prior to 1958, but our rate of malignancy (10.8%) during the period 1958-1968 is consistent with the incidence reported by others. This increase is felt to be secondary to an increased awareness of the neoplasm and the availability of more intensive screening procedures. The fact that fewer operations are being performed for hyperthyroidism than was true formerly also has resulted in a relative increase in the incidence of thyroid carcinoma observed in surgical patients.

Russell, Ibanez, Clark and White[3] state that radiation exposure is the only recognized factor predisposing to thyroid carcinoma. Many authors have seen a much higher incidence of carcinoma of the thyroid in children exposed to irradiation at a young age.[4–7] Three of our patients reportedly had received radiation exposure eight to 11 years prior to the diagnosis of thyroid malignancy. This lag phase is similar to that noted in other series.[8] Although a cause and effect relationship has not been proved definitely, there certainly is a strong suggestion that prior irradiation therapy is at least a contributing factor in the development of a malignancy of the thyroid in children. This relationship apparently does not exist in adults, since Rooney[9] noted that adults who received exposure to higher dosages of irradiation to the neck did not develop thyroid neoplasms. In all probability, many factors, of which X-ray exposure is only one, play a role in the development of thyroid carcinoma. The need to limit irradiation exposure of the thyroid gland in children is obvious.

The definitive diagnosis of thyroid malignancy is established only by microscopic examination of a suspicious thyroid nodule. A variety of preoperative metabolic and radioisotope uptake and scintiscanning techniques may be of some help in arriving at a presumptive diagnosis of malignancy, but none of these provides a positive diagnosis. In view of the reported incidence of malignancy in 15% or more of solitary nodules[10] and in 4% to 17% of multinodular goiters,[11] we advise surgical exploration and removal of the entire nodule for microscopic examination, preferably by lobectomy. Diagnosis should be established by immediate frozen section microscopic examination and further extirpation of thyroid tissue accomplished if the diagnosis of carcinoma is established. We do not believe that needle biopsies are safe or reliable, but prefer to expose the entire gland.

Many authors[3, 12, 13] advocate the use of total or "near total" thyroidectomy in the definitive treatment of thyroid cancer. The principal reason for this, other than being consistent with established principles of good cancer management, is that many of the neoplasms exhibit multicentric foci of origin. Clark, White and Russell,[14] Black, Kirk and Woolner[15] and Hirabayashi and Lindsay[16] report that 19% to 30% of patients show more than one focus of disease on routine microscopic examination. A later study[3] utilizing whole organ preparations showed that 87.5% of the glands had more than one focus of carcinoma. In our present series, multifocal areas of carcinoma were found in 19% of patients following routine histological studies. It is of little clinical consequence whether or not these multiple foci represent other primary lesions or portray intraglandular metastases from a single primary carcinoma.

Other equally reputable authors[17–19] do not elect to perform total thyroidectomies in patients with papillary carcinoma unless both lobes are grossly involved with tumor. They argue that histologic cancer is of little or no consequence and recurrence or survival rates are no different in patients with microscopic disease left behind. However, Hirabayashi and Lindsay,[16] in a statistical review of 390 patients over a 40-year period, found that 19% of patients with thyroid cancer eventually die of thyroid cancer. This includes 11% for papillary carcinomas, 33% for follicular carcinomas and 76% for anaplastic cancers. In our opinion, total thyroidectomy provides the most effective means of eradicating all the intraglandular neoplastic foci, and we advise this procedure when it is technically feasible.

Total ablation of parent thyroid tissue also is mandatory if maximum benefit is to be obtained from the postoperative utilization of I^{131}, both diagnostically and therapeutically. Thyroid medication is withheld for six weeks postoperatively, permitting the patient to become hypothyroid. An I^{131} scintiscan is then obtained. If residual thyroid tissue is detected in the neck, it is ablated with therapeutic I^{131}. This course serves two functions: First, it abolishes I^{131} uptake in residual normal thyroid tissue, if present, and permits more accurate interpretation of subsequent followup radioisotopic studies. Second, it permits the more effective use of I^{131} as a therapeutic tool in the treatment of recurrence or metastases as it eliminates the competition

(Continued on page 250)

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Where there's no will there's a therapeutic way.

*Among persons 20% or more overweight as compared with median weight for persons of like height and sex.
1. Kannel, W.B., *et al.*: *Circulation* 35:734, 1967.
2. Thomas, H.E., Jr., *et al.*: *Med. Times* 95:1099, 1967.
3. Albrink, M.J., in: Beeson, P.B. & McDermott, W. (eds.): *Cecil-Loeb Textbook of Medicine*, ed. 12, Phila.: W.B. Saunders Co., 1967.

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Preludin is indicated only as an anorexigenic agent in the treatment of obesity. It may be used in simple obesity and in obesity complicated by diabetes, moderate hypertension (see Precautions), or pregnancy (see Warning).
Contraindications: Severe coronary artery disease, hyperthyroidism, severe hypertension, nervous instability, and agitated prepsychotic states. Do not use with other CNS stimulants, including MAO inhibitors.
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for I^{131} uptake by residual, normal thyroid tissue.

The primary objection to total thyroidectomy is the fear of recurrent nerve injury or hypoparathyroidism.[20, 21] In any surgical undertaking, some increase in mortality and morbidity must be accepted if a cure of the underlying disease is to be obtained. Operation for carcinoma of the thyroid is no exception. However, these complications are not prohibitive if reasonable surgical judgment and technical skill are exercised in the performance of total thyroidectomy.

There were no deaths directly related to treatment in our series, but 36.6% of the patients had one or several complications, most of which were of minor importance. Perzik and Catz [21] report a 9% incidence of permanent hypoparathyroidism and 16% incidence of transient hypoparathyroidism following total thyroidectomy. Block[22] also reports a 9% incidence of permanent hypoparathyroidism following total thyroidectomy for cancer. Beahrs, Ryan and White[23] report that 13 patients of 27 following total thyroidectomy suffered permanent hypoparathyroidism. Our incidence of prolonged hypoparathyroidism (14.3%) after total thyroidectomy more closely approximates that of Clark, White and Russell,[14] who report a 12.5% incidence after total thyroidectomy. Distressing though postoperative parathyroid tetany may be, it usually is transient and may be successfully managed by the administration of calcium and vitamin D. One patient in our series with prolonged parathyroid deficiency eventually recovered normal function, while the other has required continued treatment with calcium and vitamin D, an incidence of permanent hypoparathyroidism of 7.1% after total thyroidectomy.

We had no permanent recurrent nerve injuries, but one transient uniliateral nerve injury did occur following a combined total lobectomy and subtotal lobectomy of the uninvolved contra-lateral lobe. This compares favorably with Perzik's reported incidence of 3.5% following total thyroidectomy for malignancy. No bilateral recurrent nerve injuries were produced.

The indications for performing a radical neck dissection following thyroidectomy for carcinoma are likewise controversial. A complete spectrum of opinion exists from that of Crile,[24] who advocates excision of involved nodes individually or in groups, to Sedgwick and Konvolinka,[25] who suggest elective node dissections on the side of the tumor in all patients. The suggested rationale for prophylactic node dissection is based upon the reportedly high incidence of occult metastases which occur in lymph nodes. Frazell and Foote[26] report 61.2% histologically positive nodes in clinically negative cases. We tend to follow a more conservative approach than the latter, but advise modified radical neck dissections in those patients with clinically evident metastases. In the "modified" operation, the jugular vein is removed but the sternocleidomastoid muscle is usually preserved unless it is invaded by tumor. Occasionally in a young patient with papillary carcinoma and demonstrable metastases in a few regional lymph node metastases which are localized near the thyroid gland, we may elect to excise widely the involved nodes and not do a full radical neck dissection. Such patients are carefully followed by periodic clinical examinations and I^{131} scintiscans and neck dissections performed subsequently if other cervical metastases become apparent.

I^{131} therapy provides our first avenue of treatment for patients with distant osseous or parenchymal metastases. Objective regression of such metastases may be achieved in either papillary or follicular carcinoma if total thyroidectomy has been carried out prior to the administration of the isotope.[27]

Radiation therapy is reserved primarily for palliation of diffusely invasive neck lesions produced by undifferentiated thyroid carcinoma. Although results are generally poor, one patient in this series did attain effective long-term palliation. It also may be helpful in the management of distant osseous metastases from well-differentiated lesions which are refractory to I^{131} therapy, as demonstrated by two patients in this series.

Five- and ten-year followup studies may be deceptive in estimating the ultimate prognosis of patients with thyroid carcinoma, particularly the well-differentiated types, because of the protracted and indolent course which these lesions frequently follow. Despite the small number of patients available to study and its statistical inadequacy, it is anticipated that this review of of our experience at the University of Missouri Medical Center during the first decade of its existence will provide a basis for continuing studies of these interesting lesions.

SUMMARY

1. The incidence of thyroid carcinoma in 478 patients subjected to thyroid operations in the University of Missouri Medical Center during the decade 1958-1968 was 10.8%.

2. Followup data have been presented for the 25 patients treated for thyroid carcinoma during the years 1958-1963. In this series, 22% of nine patients with papillary carcinoma, 37.5% of eight patients with follicular carcinoma and 87.5% of eight patients with undifferentiated carcinoma succumbed to their lesions within five years.

3. An apparent association is again noted between irradiation of the neck in childhood and the later development of thyroid carcinoma (three patients).

4. Multicentric foci of thyroid carcinoma were detected histologically on routine microscopic slides in 19% of the patients.

5. Total thyroidectomy is advocated as the primary treatment of choice for all patients with confirmed papillary and follicular carcinoma of the thyroid gland. Modified radical neck gland dissections are advisable when metastases to cervical lymph nodes are clinically demonstrable.

6. Although total thyroidectomy also is advisable for undifferentiated carcinoma of the thyroid, it is frequently precluded by widespread local invasion of the neoplasm.

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Ninth Annual Seminar on Cancer and Diseases of the Breast

The Ninth Annual Seminar on Cancer and Diseases of the Breast will be held in Denver, Colo. at the Brown Palace Hotel on May 14-16, 1970. Surgeons, radiologists, pathologists, teachers, residents and technologists who are interested in diagnosis and management of early breast cancer are invited to attend the seminar and participate in the sessions. The program will be sponsored by the American College of Radiology and the Cancer Control Program of the United States Public Health Service.

A faculty of more than 60 physicians, including pathologists, radiologists and surgeons from all over the United States, has been invited to participate in the seminar program. For further information, contact Dr. Wendell P. Stampfli, Local Arrangements Chairman, c/o St. Luke's Hospital, Denver, Colo. 80900.

PHILIP C. ANDERSON, M.D. *and*
E. DORINDA LOEFFEL, M.D., ***Columbia***

Erythrodermatitis

A Review of 40 Cases

ERYTHRODERMATITIS, one of the life-threatening diseases, is a subacute or chronic inflammation of the skin over all or most of the body.[1] Patients with severe erythrodermatitis are completely disabled and unable to function within the family or earn their living. They suffer from inflexible skin, which fissures and bleeds when they move, and from inability to conserve heat or withstand infections. Circulatory failure or septicemia may further complicate erythrodermatitis, leading to death. In some respects, erythrodermatitis is analogous to first and second degree thermal burns over the entire body. In this review of 40 cases, we wish to emphasize modern concepts of erythrodermatitis, particularly in regard to prevention, diagnosis and the importance of rehabilitation.

The concept of erythrodermatitis was developed during the 1870's in England by Erasmus Wilson and E. B. Baxter who drew on classic French descriptions from the late 18th and early 19th centuries. Two kinds of erythrodermas were recognized: The type which evolves from an aggressive spread of a usually mild skin disorder, such as psoriasis or atopic eczema, and the more difficult type which, by arising suddenly, never displays the features of any familiar skin disorder, leaving the examiner to believe that the erythroderma is primary. Our experience confirms the modern view that all cases probably are severe, generalized variants of the conditions listed in Table 1. Primary erythrodermas are very rare or nonexistent.

TABLE 1

ORIGINS OF ERYTHRODERMATITIS

In Childhood
Atopic Dermatitis
Seborrheic Dermatitis (Leiner's)
Pyoderma in Newborns (Ritter's)
Ichthyosiform Erythroderma
Candidiasis
Necrolytic Type
Lamellar Exfoliation (Collodion Baby)
Wiskott-Aldrich Syndrome
Pityriasis Rubra Pilaris
Severe Exanthems

In Adults
Eczema
  Atopic
  Contact
  Autoeczematization (e.g. with Stasis Ulcers)
Drug Reactions (heavy metals, sedatives, penicillin, quinacrine, sulfa drugs)
Psoriasis
Malignant Lymphoma-Leukemia
Rare Consideration
  Lichen Planus
  Dermatophytosis
  Dermatitis Herpetiformis
  Sarcoidosis
  Radiation
  Scabies or Mites, Infestation

REVIEW OF CASES

Our general experience and that of others[1–3] indicates that about one fourth of erythrodermas are psoriasis, another fourth are eczema and 15% to 20% are leukemia-lymphoma, totaling 65% to 70%. The remaining 25% to 30% of patients have either rare diseases or problems which will never be adequately diagnosed. Of the 40 cases we reviewed, ten were psoriasis, 12 were eczema, eight were lymphoma, three were rare problems and seven were undiagnosed.

AGE OF ONSET

Atopic dermatitis begins in infancy and may persist throughout life. The average age of our three men and seven women patients at the onset of their erythroderma was 30 years with a range of 19 to 52 years and a mean age of 30 years. Generally, psoriatic erythrodermas begin later in life. Our patients were 32 to 70 years old at onset with an average age of 60 years, a mean of 65 years. Their psoriasis had persisted on the average for 30 years prior to their erythrodermatitis. Patients with lymphoma-leukemia developed their disease and their erythrodermas later in life, but because the condition is not rapidly fatal with benefit of treatment, death occurred usually in the seventh decade not far short of a normal life span. The undiagnosed cases in our series involved older persons, all men, who responded poorly to treatment, perhaps because they characteristically lacked funds, education and job opportunities in comparison to the other groups. The three rare diagnoses in our series were dermatitis herpetiformis, ichthyosiform erythroderma and diffuse pyoderma in the newborn.

Tactics of Diagnosis

When a specific history of a primary skin disorder is lacking, the cause of an erythroderma may never be known or become apparent only if the milder form recurs. In this event, the most worrisome possibility is lymphoma, for without a diagnosis, the proper use of antineoplastic drugs is not practical.

Some lymphomas, such as mycosis fungoides, may persist for years as nondescript inflammatory plaques in the skin before abnormalities appear in blood cells or in disturbed body chemistries.[4–6] Repeated selective skin biopsies of each new lesion may be necessary before the diagnostic cytology of lymphoma can be found. In our series, the vigorous lymphoma work-up included skin biopsy, complete blood counts, sedimentation rate, serum proteins, bone marrow cytology, and x-ray examinations of chest, gastrointestinal tract and kidneys. However, these tests failed to identify early lymphoma. Special attention to total white blood cell count and eosinophil percentage in the differential white cell count also was fruitless. The usual, associated lymphoma symptoms of fever, weight loss and lymphadenopathy were not reliable. When lymphadenopathy did occur, it was of the nonspecific lipomelanotic reticulosis or dermatopathic variety, so that biopsy of the lymph node furnished no new information.

Useful diagnostic information may be obtained from observing the patient's response to a well-planned and energetic treatment program. A rapid and sustained response usually confirms the diagnosis of eczema. Erythrodermas associated with lymphoma, psoriasis and undiagnosed causes are more difficult to clear and more prone to relapse following relaxation of treatment.

In this review, the authors emphasize modern concepts of erythrodermatitis, particularly in regard to prevention, diagnosis and the importance of rehabilitation. The diagnostic information included should prove of special value to the practicing physician. Dr. Anderson is Associate Professor of Dermatology and Assistant Dean in charge of Long Range Planning at the University School of Medicine. Dr. Loeffel is a Resident Physician in the Section of Dermatology.

Common and Uncommon Complications

The usual patient with acute erythrodermatitis has severe discomfort, chilling, malaise, easy fatigue and adenopathy as evidence of his systemic disease. Superficial pyoderma, furuncles or abscesses are the most common complications. Severe exfoliation or erosions of the skin on the hands, feet, flexural areas or the neck will disable the patient. Some patients eventually will lose hair, nails and develop persistent pigmentary changes. A few have ectropion changes of the eyes. Psychic problems, anxiety and depression regularly accompany such disfigurement and disability.

Protein and water losses may become important, requiring replacement to maintain circulation and prevent high output cardiac failure.[7–9] Severe hypothermia may be sudden and fatal.[10] Cutaneous infections may lead to lymphangitis, thrombophlebitis or sudden septicemia and death. Rheumatic fever and glomerulonephritis may develop from streptococcal pyoderma. If heart or kidneys are damaged or if the serum albumin or blood volume is depleted, then septicemia and circulatory failure are more likely. Macrocytic anemia is a rare complication, but may be due to the steady loss of folate in desquamating skin.[11] Microcytic anemias are uncommon unless the patient is bleeding, which may occur as a complication of prolonged corticosteroid or methotrexate treatment. In our series, anemia occurred once in a boy with rheumatic glomerulonephritis acquired from the streptococcal infections in his skin.

In addition, exceptional complications may occur, such as complete hematologic depression of leukemia or severe arthritis with absorption of bone in psoriasis. Why a particular patient will develop chronic exfoliative dermatitis is unknown, but Parish[12] has shown that cytotoxic

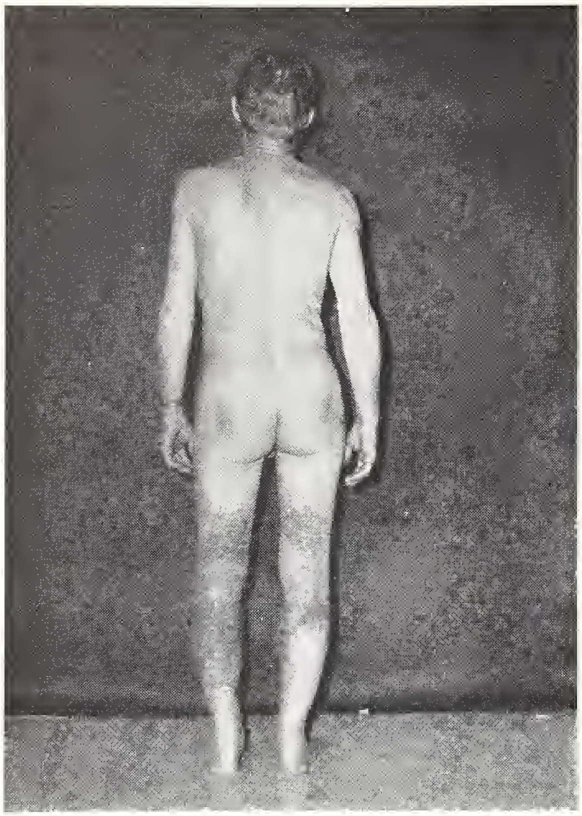

Fig. 1 Skin was red, tender and swollen over entire body in this case of atopic erythrodermatitis. Pain in his legs prevented walking, and this skilled craftsman was unable to earn a living. Greatest risk was from infection in skin of legs.

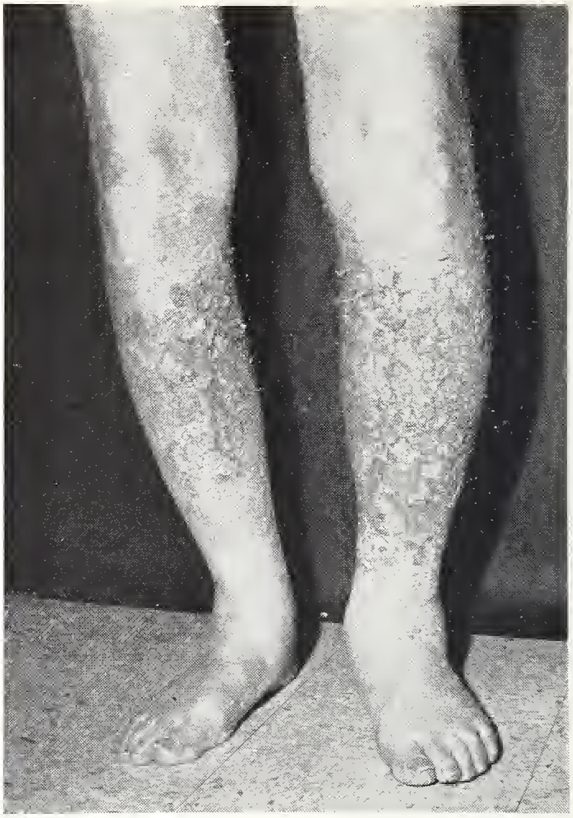

Fig. 2 Infected open skin of the legs was treated by elevation, open wet dressings with cool normal saline and systemic erythromycin (250 mg four times a day). No systemic steroids were given.

globulins develop which destroy epidermal cells. This type of autoimmunity is not well-understood.[13]

Treatment

When erythroderma is severe, relief of discomfort is the primary goal of therapy. Shaking chills, malaise, despair and pain are the usual problems. Hospitalization is valuable for reassurance, enforced rest and development of the diagnosis and treatment (Figs. 1, 2 & 3). Analgesics and sedation, perhaps including meperidine hydrochloride (Demerol), are valuable for a few days until control has been gained over symptoms, edema, excoriation and erosions. The traditional open, cool, dermatologic wet dressing is effective, but, because of chilling, may be tolerated on only about one fourth of the body surface at a time. These wet dressings remove crusts and edema and increase the flexibility of the skin. Lubrication with a simple oil-in-water emulsion cream such as Acid Mantle Creme may be used after wet dressings.

Systemic corticosteroids will benefit acute eczema and psoriasis; however, they may obscure the diagnosis of leukemia. Therefore, a burst of steroids is indicated only after a suitable diagnosis has been made, unless discomfort is severe.

Optimally, erythrodermatitis might be prevented by early and energetic treatment of the primary cutaneous disease. Stress, chronic illness, allergic drug eruptions, allergic contact reactions and topical overtreatment influence the onset of erythrodermatitis. Fundamentally important is medical neglect on top of poverty and poor education, which allow a manageable primary skin disease to progress. There is no way at present to assess the effectiveness of preventive treatment.

Results

In our series, treatment results were excellent in patients with atopic dermatitis: All patients have remained in good control and able to function on their jobs, and only one half of these

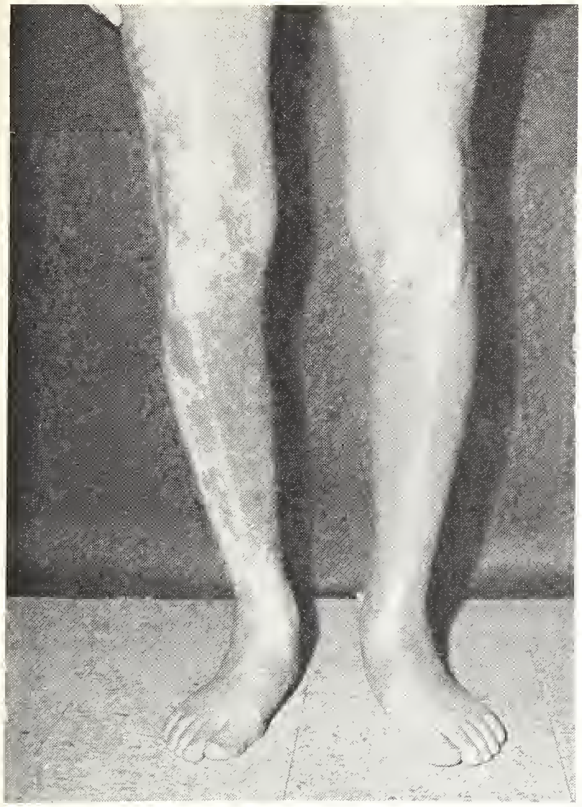

Fig. 3 Four days later, risk of infection is eliminated and erosions have epithelial covering. Elastic stockings and adequate lubrication for at least three months more is needed to prevent recurrence.

people require continued medical care for their skin. Similarly, the patients having psoriasis are well, but all of them require treatment with methotrexate and constant supervision. Patients with lymphoma have a poor prognosis for cure or control of complications. The goal in therapy for these patients is to prevent pyoderma and severe discomfort by almost constant medical care.

Rehabilitation

It is not sufficiently well-understood that the prognosis of erythrodermatitis is very favorable in psoriasis, eczema and many other conditions excepting malignant lymphoma. However, the good prognosis may depend on early energetic treatment and well-calculated rehabilitation. Particular attention must be given to healing hands and feet and flexural areas and to correcting disfigurement if the patient is to hold a paying job outside the home.

Direct job counseling and assistance to the patient at work, including a visit to his employer, also is the best treatment for depression and despair. For the most difficult cases, a complete team of rehabilitation experts may be needed. By drawing on these experts, we have restored to full function several persons who had resigned themselves to becoming complete invalids or, in one case, to committing suicide. Persons with severe atopic dermatitis may come to assume that they have a vague, untreatable, congenital disease. If the correct and more encouraging diagnosis is made, however, rehabilitation may become important to them again. Each person disabled by a persistent erythroderma, no matter how unfavorable the diagnosis, should have supportive evaluation for the possibility of rehabilitation.

The value of rehabilitation is demonstrated in our series by the fact that about three fourths of those with erythroderma in the working age groups have been restored to full occupation while only about one fourth have been cleared entirely of their skin disease.

Summary

The most common causes of erythrodermatitis in this series of 40 patients were aggravated atopic eczema and psoriasis and malignant lymphoma. Simple tactics for diagnosis will give results equal to those of intensive medical investigation. Treatment should be aggressive because the prognosis is good, especially with deliberate efforts at rehabilitation. The ultimate answer to this disease is prevention.

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ELLIS FISCHEL STATE CANCER HOSPITAL

Semiannual Professional Program

May 9, 1970 **The Ramada Inn, Columbia**

"Management of Advanced Breast Cancer"

8:30 AM Registration (No fee)

9:00 AM *Welcome,* Reginald P. Pugh, M.D.

9:05 AM *Patterns and Prognosis of Advanced Disease,* William L. Donegan, M.D.

9:20 AM *Palliative Mastectomy,* Harvey R. Butcher, Jr., M.D.

9:40 AM *Radiotherapy in Management,* William T. Moss, M.D.

10:25 AM Coffee Break

10:45 AM *Results of Therapeutic Castration,* Yeu-Tsu N. Lee, M.D.

11:15 AM *The Present Status of Adrenalectomy,* Hugh S. Harris, Jr., M.D.

11:45 AM Questions

12:00 NOON Luncheon, Ramada Inn

1:30 PM *Indications for Hormone Therapy,* Henry M. Lemon, M.D.

2:15 PM *The Role and Results of Chemotherapy,* Thomas C. Hall, M.D.

3:00 PM Coffee Break

3:20 PM Panel Discussion, John S. Spratt, Jr., M.D., Moderator
Participants:
Harvey R. Butcher, M.D.
Thomas C. Hall, M.D.
Henry M. Lemon, M.D.
William T. Moss, M.D.

4:00 PM Adjournment

All physicians in Missouri are invited to attend this Professional Program. For further information, please write to William L. Donegan, M.D., Ellis Fischel State Cancer Hospital, Business Loop 70 at Garth Ave., Columbia, Mo. 65201.

In Memoriam

Post, Cyril A., M.D., Poplar Bluff, a graduate of St. Louis University, 1939; member of Butler-Wayne-Ripley County Medical Society; aged 60; died Dec. 27, 1969.

Nash, W. Hampton, M.D., St. Louis, a graduate of St. Louis College of Physicians and Surgeons, 1903; member of St. Louis County Medical Society; aged 92; died Jan. 8, 1970.

Pianetto, M. Besso, M.D., Koch, a graduate of Nacional del Litoral; member of St. Louis Medical Society; aged 61; died Jan. 24, 1970.

Randall, Don Q., M.D., St. Charles, a graduate of Indiana University, 1943; member of St. Charles-Lincoln County Medical Society; aged 49; died Feb. 1, 1970.

Walker, George S., M.D., Clinton, a graduate of the University Medical College of Kansas City, 1907; member Henry County Medical Society; aged 85; died Feb. 12, 1970.

Leitz, Frank B., M.D., Kansas City, a graduate of the University of Wisconsin, 1928; member of Jackson County Medical Society; aged 74; died Feb. 13, 1970.

Von Kaenel, Joseph E., M.D., St. Louis, a graduate of St. Louis University, 1938; member of St. Louis Medical Society; aged 57; died Feb. 14, 1970.

Kirtz, Louis P., M.D., St. Louis, a graduate of Washington University, 1938; member of St. Louis Medical Society; aged 57; died Feb. 27, 1970.

President's Message

This is my last contribution to MISSOURI MEDICINE as President of the Missouri State Medical Association.

I have enjoyed a busy but very pleasant year as your President. Many members have contributed far more than I to the State Association. It is said that Goethe once commented, "There would be little left of him if he were to discard what he owed to others."

With this thought in mind, I want to thank my immediate predecessor, Dr. David Kerr of St. Louis, who has been so helpful. His friendly counsel has been invaluable.

The MSMA Council has been led by Dr. Gerald Miller of Kansas City, whose work has been outstanding. Those of you who have preceded me as President know how important it is to have a good Council Chairman. Dr. Walter Gunn of St. Louis and the Public Service Committee planned the third successful County Society Officer's Conference in January. Each year, this program becomes more valuable. Our Treasurer, Dr. Max Franklin of St. Louis, has done a fine job, especially as Chairman of the Budget Committee.

Doyle C. McCraw, M.D.

Dr. Jack Matthews of Jefferson City wears two hats, also. He is our Secretary and Chairman of the Legislative Committee. Space does not permit me to list his accomplishments.

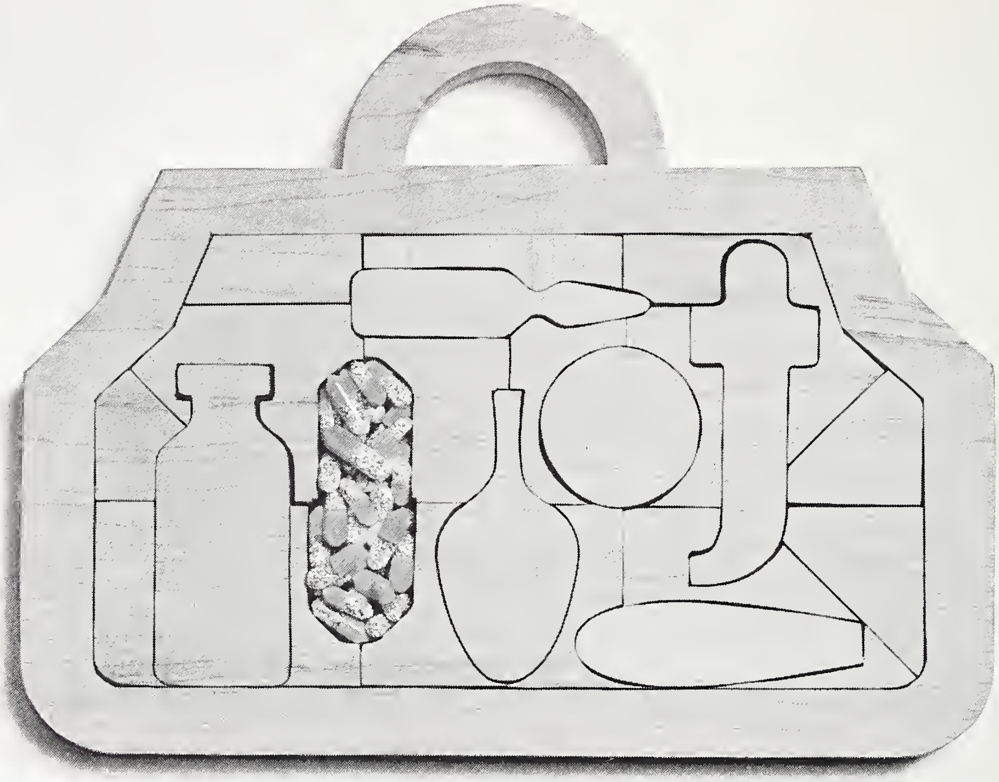
I am indebted also to the entire Council and the Delegates and Alternate Delegates to the AMA. Thanks are in order, too, to the Board of AMPAC and to you for your generous contributions which have made their work easier and more effective.

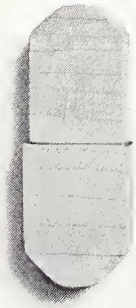
The Trustees of the Missouri State Medical Foundation, with the help of Tom Fox, are contributing a great public service in their management of the Student Loan Fund.

My appreciation goes to so many who ably served on committees of the Association and to the officers of the component county medical societies and their executive staffs.

Last, but not least, I am in great debt to our MSMA Executive Secretary Ray McIntyre, Bob Carroll, Royal Cooper, Bert Thomas, Jean Duensing, Rose Mahon, Wilma Sperry, Ruth Pack, Lorraine Phillips and Eve Pfaff. You will never assemble a more dedicated or loyal staff.

I look forward to next year with Dr. Joseph Fisher of St. Joseph as President. He has a most impressive background as a physician, a Delegate from Buchanan County for many years, Vice-Speaker of the House of Delegates for three years and Speaker for three years. Dr. Fisher is completing his tenth year on the Council and has served as Council Chairman. I am confident he will be one of our best Presidents.





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Woman's Auxiliary

As I write my last article for this page as President of the Woman's Auxiliary to the MSMA, I find that I am approaching the task with sadness and with the wish that I had been able to do more with this "golden opportunity." The Auxiliary is grateful, indeed, for this space which is given so generously in Missouri Medicine and this opportunity to report to the members of the MSMA on the goals, activities and accomplishments of your Woman's Auxiliary.

As I contacted the individual auxiliaries during the past year, I placed emphasis on the importance of the idea that "one woman in a town or one active woman in a group" can effectively carry on much of the Auxiliary program. This need has arisen because more than half of the county auxiliaries in Missouri are small or widely scattered.

Mrs. James A. Reid, President

Also, I emphasized the fact that all tasks which are done in the interest of others build our reserve of good feeling in Missouri. The Auxiliary members have tried to educate the public by depositing in the bank of human relations a large reserve of good will. This "deposit" must begin with our own local groups. The basis for good human relationships has always been influenced by the thought that "What you are speaks so loud, I cannot hear what you say." A service done without sincerity will be recognized for what it is. As doctors' wives, we contribute many hours of service to others. We are sincerely interested in doing so.

This month, Mrs. William M. Walker of Springfield, who is better known as "Pat," will become the new President of the Woman's Auxiliary to the MSMA. To know her is to love her. She is an exceptionally capable person, and you will enjoy reading the information she will have for you.

The Presidency of the State Auxiliary offers a challenge, and one grows to meet that challenge.

EDITORIALS

MISSOURI UNIVERSITY AND MISSOURI MEDICINE

We are happy to be able to again present a Missouri University Medical Center special issue of MISSOURI MEDICINE. An excellent group of papers was submitted for this issue and many a "groan and squirm" went into the task of selecting those to be included. The chief determinant related to an effort to have balance from the standpoint of subject material. If this was done inexpertly, your Editor will accept the blame . . . not too graciously, perhaps, but bravely. We have hopes that we will have permission to publish the other papers we received in future issues.

This brief note gives your Editor an opportunity to again acknowledge the fine support MISSOURI MEDICINE receives from the Missouri University School of Medicine. Thus, our Journal serves as one of the media through which the University serves the medical community of Missouri.

JOSEPH V. FINNEGAN, M.D., Editor

TALK OF PRICE LIDS ON HEALTH CARE

It is all very well for the Undersecretary of Health, Education and Welfare to talk of ceilings on charges made by hospitals and doctors under Medicare and Medicaid. The administration, apparently, would replace the present reasonable cost and reasonable charge criteria with negotiated or imposed ceilings.

"With rates set in advance," says John G. Veneman, the Undersecretary, "the provider would be challenged to stay within the limits of the known reimbursement."

Certainly all of us are for lower prices, not excluding physicians and hospital administrators. But does the government intend to set price controls for certain services and not for others? Will doctors simply drop out of the program? Could hospitals be expected to accept large numbers of patients at a loss if other hospital costs continue to advance?

Naturally the provider "would be challenged to stay within the limits of the known reimbursement" if that is what the contract says. But does this mean that the hospital is supposed to whisk the oxygen mask away from the patient if the bill is approaching the limits of known reimbursement? Is the doctor supposed to look at the statement of charges and withdraw the hypodermic needle from the quivering arm, if the sick body on the bed has reached the limits of known reimbursements?

Of course not, for doctors and hospitals don't do it that way.

Yet if the government intends to set rates in advance, it had better be prepared to fix costs in other areas of health care: The construction of hospitals, the price of equipment, the rental of doctor's offices, the salaries of nurses, technicians, orderlies and dieticians, and the price of building parking lots around hospitals.

It may be politically popular to put the onus of the high cost of health care on doctors and hospitals. Realistically, the government and the taxpayer needs to acknowledge the fact that preventive medicine, cure and custodial care all cost money. Somebody will pay. The decision as to who will pay can be reached without placing the brand of villainy on the doctors and hospital administrators. This country never has had comprehensive health care. We can have it whenever we are willing to pay for it.

The Kansas City Times
March 2, 1970

OH LORD, HEAR . . . .

I had many talks not too long ago with a Doctor who was dying. Fortunately, and this is advisedly, he knew it.

We were good friends—the type who could call in the middle of the night to tell you he was too busy, worn out or having troubles and you would go on his house call. And he reciprocated.

He never was too churchly a man, but he was a good Lutheran. He made his contributions. He did his work when he could. He was a religious man.

He wondered, as we sat with his wife of 43 years beside him, on his future. He wasn't naive enough to think that in the few months remaining to him, he could make up for his entire life. He wasn't a profligate; he never cheated on his wife, but yet he wondered what he would have to answer to **Him.** Sometimes a Doctor is a priest, minister, counsellor, healer, but also frequently he is the man who can say, knowing a minimum of any patient's life, words of solace. Being so intimate with this Doctor, it was difficult to assure or reassure him that his ultimate destination would be good.

We got to talking one day about a Staff meeting he had missed. I filled him in on all the details and talk and he seemed happy. He then suddenly asked me whether any of the Saints were Doctors. He remembered vaguely that St. Luke was and is revered as one of the early physicians. We joked about how nice it would be to be able to work a miracle or two at times—he asked what God thought about physicians. Understand, this man was moderately senile, but he had moments of lucidity. God forgive me, but I told him my estimation of life in the hereafter. Me, I want a million up-to-date medical books, room after room filled with Scotch (and mixes) and a special medical telescope to the earth. First, I want to find out why some of my patients died—or lived. This, I figure, should take up quite a bit of Eternity.

Then I told him about the Heavenly Medical Society. Permanent overseer but not permanent president, St. Luke. Meetings would be daily—(daily?) and every problem and question would be answered and solved immediately. On ESP, I have mixed emotions. I did not believe that this was within my Doctor friend's present ken.

He seemed happy, but was really serene when I told him that Doctors, like ministers and priests, are a dedicated people—that once a Doctor, forever a Doctor.

When, and almost at the last, just before he went into his final coma, I told him my belief that those with whom we were not only associated, but intimately attached to, as a wife and family, would ultimately wind up together. Then he jokingly said to his wife, "Well, Babe, I'll be seeing you."

Now he is dead. Most of his patients, good and bad, speak glowingly of him. Those of us who knew him before he died advanced one further step into eternity while remembering him often with love, gratitude and honor.

The nicest thing happened the other day. In a Doctor group session, his name came up. Not one of the Doctors who spoke of him mentioned his name without first saying "Doctor."

Goodbye, Doctor. I too hope to be seeing you.

R. A. MEZERA, M.D.
St. Louis County Medical Society Bulletin

COMMENT . . .

Our Readers Write

Dear Dr. Finnegan:

It has been brought to our attention that in the January 1970 issue of Missouri Medicine (Vol. 67, No. 1, page 65, "From the Medical Schools" section), there is an excerpt from the Washington University news stating that "Carlos A. Perez, M.D., is Director of the Division of Radiation Therapy."

I would like to clarify this, since I am only an Associate Professor of Radiology and Associate Radiation Therapist of the Institute and I have no knowledge of any other appointment. I am sure this was a misunderstanding on the part of the News Bureau of the University.

I would appreciate your printing this letter in an appropriate section of your journal. Thank you very much for your attention to this matter.

Sincerely yours,

CARLOS A. PEREZ, M.D.
Associate Professor, Radiology
Washington University School of Medicine
St. Louis

EDITOR'S NOTE: The April issue of MISSOURI MEDICINE was printed before the 1970 Annual Session of the MSMA and the election of new Association officers. For that reason, the masthead page still carries the names of the 1969-1970 officers. New listings will be found in the May issue.

County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

BUCHANAN COUNTY MEDICAL SOCIETY

The annual "Heart" program of the Buchanan County Medical Society was held at the Moila Club on February 4. The program was sponsored by the St. Joseph-Buchanan County Division of the Missouri Heart Association.

Guest speaker was Dr. Glenn O. Turner, Springfield, president of the Missouri Heart Association. Dr. Turner delivered a paper entitled "Sub-Regional Development of Improved Medical and Surgical Cardiovascular Care: Some New Concepts."

Dr. Turner discussed the progress already made and the opportunity for further gains in reducing deaths from heart attacks in sub-regional areas of Missouri, of which St. Joseph is a part. He pointed out the reduction of heart attack deaths brought about by intensive care units in hospitals, by the teamwork of large and small hospitals working together on cardiovascular cases and by having defibrillators readily available in hospitals in as many areas as possible.

Dr. Turner noted that if all patients suffering from heart attacks and arriving alive at hospitals could be managed in coronary care units, one third of the 170,000, the number of people who died in 1968, could be saved. This would be 50,000 lives saved in the nation and more than 1,000 in Missouri.

Dr. Turner was introduced by Dr. Lucien W. Ide, a past-president of the Missouri Heart Association. Program arrangements were made by the members of the Program Committee who are Drs. Philip C. Lehman, chairman; Richard O. Craig and Martin J. Fischer. Dr. Owen W. D. Craig, President, presided at the meeting.

E. F. BUTLER, M.D., *Secretary*

BILL O'MALLEY

"Which would you like, Doctor . . . gallbladder, kidneys, slipped disc or broken leg?"

GRAND RIVER MEDICAL SOCIETY

Thirty-four members of the Grand River Medical Society and their guests met at the Strand Hotel in Chillicothe on February 12. Guests included Dr. John N. Martin, Councilor for the First District, and Mrs. Martin; Dr. Max Berry; and Dr. James Reynolds, guest speakers.

Dr. Martin spoke briefly to encourage support for the Missouri Political Action Arm of the Missouri State Medical Association and for the development of the medical school at the University of Missouri-Kansas City.

Dr. Max Berry discussed current changes in the delivery of health care services. Dr. Reynolds, a resident who is working with Dr. Berry, spoke on the emergency care of patients with acute coronary occlusion, especially in regard to recent developments in the prevention and treatment of acute arrhythmias.

A business meeting followed the scientific program.

It was decided that the Grand River Medical Society would join the Buchanan County Medical Society in hosting a Hospitality Room at the MSMA Annual Session on April 2-5.

Mrs. Richard Hughes conducted the program for the Woman's Auxiliary.

FRANK R. DALEY, M.D., *Secretary*

FIFTH DISTRICT

COUNCILOR
JAMES C. COPE, M.D.

BOONE COUNTY MEDICAL SOCIETY

The Boone County Medical Society met at Ernie's Steak House in Columbia on March 3 with Dr. Henry M. Hardwicke, President, presiding.

Dr. Allen reported for the Committee on Lay Projects and stated that the KOMU-TV program schedule has been complete for the year and will continue as in the previous year. He also reported on the proposed diabetic screening for the entire population of Boone County. He indicated the magnitude of the project, discussed methods of screening and the simple or more comprehensive screening procedures. Dr. Richard A. Guthrie recommended that an ad hoc committee be appointed to investigate the screening techniques to be employed.

In the absence of Dr. Harold D. Adams, Dr. LeRoy Miller reported that dates for the immunization program at all elementary schools in the county would be announced in the near future. There was a discussion concerning liability for malpractice, efficiency of the vaccine and duration of immunity.

Dr. Ira G. Hubbell moved that an ad hoc committee regarding overall planning for the health care in the county be appointed. The motion was seconded and passed.

NORMAN D. ASEL, M.D., *Secretary*

SIXTH DISTRICT

COUNCILOR
WILLIAM D. BRADSHAW, M.D.,
CLINTON

WEST CENTRAL MISSOURI MEDICAL SOCIETY

The regular monthly meeting of the West Central Missouri Medical Society was held at the Harrisonville Hotel in Harrisonville on February 12. A social hour preceded the meeting.

The scientific portion of the program was presented by Dr. David A. Ball, orthopedic surgeon from Kansas City, who presented a talk on orthopedic injuries in Viet Nam. The large collection of color slides of victims, with which he illustrated his talk, emphasized more forcibly than words could express just how severe these injuries can be and the problems involved in their care. Many of the Viet Nam victims are flown straight from the camp hospitals to various medical centers in the United States in a few hours. Dr. Ball made an excellent presentation on the care these boys receive and his talk was appreciated.

Following the scientific program, minutes of the previous meeting were read.

In reporting on highlights of the recent Officers' Conference in Jefferson City, President Roy W. Pearce discussed the current nationwide trend toward comprehensive health insurance. He also requested that members read a letter he had prepared relative to Society committees and personal preferences in regard to serving on the committees.

There being no further business, the meeting was adjourned until the next Society meeting on March 5, the first Thursday in the month, at the Country Club in Nevada.

CARTER W. LUTER, M.D., *Acting Secretary*

LAFAYETTE-RAY COUNTY MEDICAL SOCIETY

The Lafayette-Ray County Medical Society met at Maib's Cafe in Lexington on February 10. Sixteen members and guests were present.

Kenneth Burman, a fourth-year student at the University of Missouri School of Medicine, attended the dinner as a guest of Dr. Charles Riley of Richmond, with whom he is taking his preceptorship.

Since no program was scheduled for this dinner meeting, the meeting adjourned immediately after the dinner.

WAYNE BOYDSTON, M.D., *Secretary*

TENTH DISTRICT

COUNCILOR
EUGENE T. HANSBROUGH, M.D.,
POPLAR BLUFF

MINERAL AREA COUNTY MEDICAL SOCIETY

The Mineral Area County Medical Society met in the Hoctor Building in Farmington with Drs. Richard A. Fraser, Kirby L. Turner, Robert A. Huckstep, Emmett F. Hoctor, William Ford, Charles W. Chastain, Calixto Arguelles and Retus W. Osborn present.

The scientific program consisted of an especially interesting presentation by Dr. Javier Pichardo, Director of the Alcoholism Treatment Program at the Farmington State Hospital, who discussed new treatment methods in use at the hospital. His talk was entitled "Alcoholism—What's New?"

President Andrew Fraser presided at the meeting of the membership following the scientific program.

C. W. CHASTAIN, M.D., *Secretary*

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New Members

Luis L. Alvarez, M.D., 1606 Grattan, St. Louis, has become a member of St. Louis Medical Society. Dr. Alvarez is a native of the Dominican Republic, received his M.D. degree at the University of Santo Domingo in 1958. He specializes in pathology.

Eugene C. Beatty, M.D., 1710 Independence Ave., Kansas City, has become a member of Jackson County Medical Society. Dr. Beatty is a native of Denver, Colo., received his preliminary education at the University of Denver and his M.D. degree at the University of Colorado in 1946. He specializes in pathology.

James E. Bowers, M.D., 325 N. Kirkwood Rd., St. Louis, has become a member of St. Louis Medical Society. Dr. Bowers is a native of Chicago, Ill., received his preliminary education at John Carroll University and his M.D. degree at St. Louis University in 1964. He specializes in pediatrics.

S. Albert Carabelli, M.D., 1515 Lafayette Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Carabelli is a native of Trenton, N. J., received his preliminary education at the University of Pennsylvania and his M.D. degree at St. Louis University in 1965. He specializes in internal medicine.

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Richard C. Clark, M.D., 4960 Audubon Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Clark is a native of Pittsburgh, Pa., received his preliminary education at Princeton University and his M.D. degree at Cornell University in 1964. He specializes in thoracic surgery.

Charles H. Cozean, Jr., M.D., 937 Broadway, Cape Girardeau, has become a member of Cape Girardeau County Medical Society. Dr. Cozean is a native of Bonne Terre, received his preliminary education at Westminster College and his M.D. degree at the University of Kansas in 1962. He specializes in ophthalmology.

Gustave L. Davis, M.D., 216 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Davis is a native of Brooklyn, N. Y., received his preliminary education at Union College and his M.D. degree at the State University of New York in 1963. He specializes in pathology.

Ferando Del Valle, M.D., 5400 Arsenal, St. Louis, has become a member of St. Louis Medical Society. Dr. Del Valle is a native of Havana, Cuba, received his preliminary education at the Institute DeSequnda Ensenanza Del Vedado and his M.D. degree at the University of Havana in 1948. He specializes in psychiatry.

Nancy C. Fax, M.D., 24th & Cherry, Kansas City, has become a member of Jackson County Medical Society. Dr. Fax is a native of Huron, S. D., received her preliminary education at Pomona College and her M.D. degree at the University of Oregon in 1966. She specializes in anesthesiology.

S. Robert Kovae, M.D., 950 Francis Pl., St. Louis, has become a member of St. Louis Medical Society. Dr. Kovac is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at the University of Missouri in 1964. He specializes in obstetrics and gynecology.

Ralph A. W. Lehman, M.D., Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Lehman is a native of Hamburg, Germany, received his preliminary education at Harvard University and his M.D. degree at Harvard University in 1962. He specializes in neurosurgery.

Jon Tek Lum, M.D., 1420 Grattan, St. Louis, has become a member of St. Louis Medical Society. Dr. Lum is a native of Honolulu, Hawaii, received his preliminary education at Brown University and his M.D. degree at Tulane University in 1963. He specializes in psychiatry.

Samuel McQueen, M.D., 100 N. Euclid Ave., St. Louis, has become a member of St. Charles-Lincoln County Medical Society. Dr. McQueen is a native of Johnson City, Tenn., received his preliminary education at East Tennessee State College and his M.D. degree at the University of Tennessee in 1961. He specializes in pathology.

John H. Mayer, M.D., 5535 Delmar, St. Louis, has become a member of St. Louis Medical Society. Dr. Mayer is a native of New York, N. Y., received his preliminary education at Stanford University and his M.D. degree at the University of Missouri in 1965. He specializes in surgery.

Edward J. Miller, M.D., 4919 Forest Pk., St. Louis, has become a member of St. Louis Medical Society. Dr. Miller is a native of St. Louis, received his preliminary education at St. John's University and his M.D. degree at St. Louis University in 1962. He specializes in internal medicine.

Robert R. Pavlu, M.D., Kelling Clinic, Waverly, has become a member of Lafayette-Ray County Medical Society. Dr. Pavlu is a native of Okeene, Okla., received his preliminary education at St. Benedict's College and his M.D. degree at the University of Oklahoma in 1965. He is in general practice.

Arthur L. Prensky, M.D., 500 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Prensky is a native of Bronx, N. Y., received his preliminary education at Cornell University and his M.D. degree at New York University in 1955. He specializes in pediatric neurology.

Vincent J. Proskey, M.D., 4919 Forest Pk., St. Louis, has become a member of St. Louis Medical Society. Dr. Proskey is a native of Detroit, Mich., received his preliminary education at the University of Detroit and his M.D. degree at Marquette University in 1964. He specializes in internal medicine.

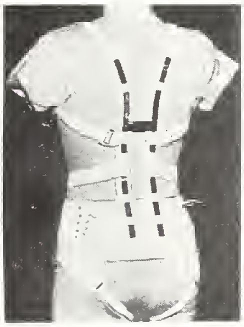
Joel Rutman, M.D., 500 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Rutman is a native of Cleveland, Ohio, received his preliminary education at Brandeis University and his M.D. degree at Harvard University in 1963. He specializes in pediatrics.

Ernie L. Sandidge, M.D., 747 Main, New Madrid, has become a member of Semo County Medical Society. Dr. Sandidge is a native of Lake Cormorant, Miss., received his preliminary education at Memphis State University and his M.D. degree at the University of Tennessee in 1968. He is in general practice.

Robert T. Solley, M.D., 4 N. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Solley is a native of New York, N. Y., received his preliminary education at Yale University and his M.D. degree at Columbia University in 1926. He specializes in internal medicine.

John C. Van Gilder, M.D., Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Van Gilder is a native of Huntington, W. Va., received his preliminary education at West Virginia University and his M.D. degree at the University of Pittsburgh in 1961. He specializes in neurological surgery.

Stephen Waltman, M.D., Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Waltman is a native of Brooklyn, N. Y., received his preliminary education at Massachusetts Institute of Technology and his M.D., degree at Yale University in 1964. He specializes in ophthalmology.



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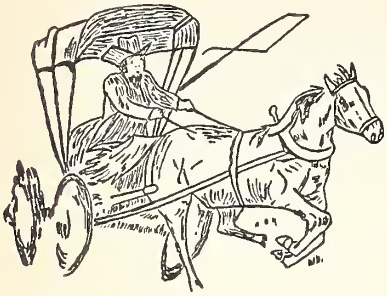
LEO H. POLLOCK, M.D.

Missouri Medicine in Review



FORTY YEARS AGO

The Bacillus Calmette-Guerin, which is the so-called BCG, was isolated from a heifer in 1908 by Calmette and his associate. This organism was subsequently determined to be the bovine type of tubercle bacillus. Continuous cultivation over a period of years on glycerinated ox bile potato medium has reduced its virulence for guinea pigs, rabbits and cattle. Calmette first recommended that newborn infants be fed BCG and it was so administered in 1921 at the Maternity Hospital in Paris.

The 73rd Annual Meeting of the MSMA, which convenes in Hannibal on May 12-15, 1930 promises to be a highly satisfactory session. Members are urged to make hotel reservations in advance of the date of the Annual Meeting so they can secure their rooms as soon as they arrive in Hannibal. Rates for single hotel rooms without bath range from $1.25 to $1.50; singles with bath, $2.00 to $4.00.

Dr. Harvey J. Howard, St. Louis, professor of ophthalmology at Washington University School of Medicine, told of incidents in his 12-year residence in China during which period he introduced the science of ophthalmology in China. His experiences included fitting Henry Pu, the boy emperor, with glasses. Upon examination, Dr. Howard found the emperor's vision so poor that he was almost blind, but he decided that glasses would correct the defect. After the test frames were adjusted and the lenses fitted, they improved the emperor's vision to his satisfaction and he wanted to keep both the test frames and lenses.

TWENTY-FIVE YEARS AGO

With the announcement by Missouri Medical Service on Sunday, March 11 that the medical and surgical care plan sponsored by the Missouri State Medical Association has been launched, the state of Missouri will now be completely covered by plans organized and operated by the physicians of the state. Surgical Care, Inc. of Kansas City, now in its second year of operation, is caring for more than 32,000 people in the western part of the state.

A new wing has been completed on the Louise G. Wallace Hospital in Lebanon. This increases the capacity of the hospital to 80 beds.

Dr. John Zahorsky, St. Louis, was made president emeritus of the Bethesda General Hospital recently. He resigned as president after having been head of the institution for 12 years.—Dr. L. J. Schofield, Warrensburg, was named county physician for Johnson County. Dr. A. R. McComas, Sturgeon, will be presented with a gold button commemorating his 50th anniversary as a Mason on April 11.

The Bronze Star with a special citation has been awarded to Col. Rex L. Diveley, Kansas City, for meritorious service in connection with military operations as senior consultant, Orthopedic Surgery Office of the Chief, EPO, from August, 1942 to May 15, 1944.

TEN YEARS AGO

Harold Jones, a fourth-year student at the University of Missouri School of Medicine, and Philip Hitchcock, M.D., report in MISSOURI MEDICINE that "Cortisone decreases ACTH production causing atrophy of adrenal glands which may thus not be able to respond to stress. The preparation of patients who have received cortisone is described. Postoperative continuation of cortisone may be life saving as many cases of irreversible shock have occurred in these patients."

The Family and Children's Service of Greater St. Louis has elected William H. Masters, M.D., St. Louis, as president. The organization celebrates its 100th anniversary this year.

The Springfield News-Leader recently carried an article about Merritt L. Gentry, M.D., Springfield, and his collection of pipes. The article also gave some of Dr. Gentry's views on public health.—*The Chillicothe Constitution-Tribune* carried a picture story about G. W. Carpenter, M.D., on the occasion of his 80th birthday late in January, calling attention to his continued activity in medical practice.

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Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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MSMA Elects Gerald L. Miller Next President

The 112th Annual Session of the Missouri State Medical Association was held on April 2, 3, 4 and 5 at the Muehlebach Hotel in Kansas City with 1,085 persons taking part in the various events and programs. Included in the total registration figures were 569 members, 28 guests and 182 members of the Woman's Auxiliary.

The House of Delegates of the MSMA held three sessions during the convention, discussing various Association problems and outlining policies and programs for the coming year. At the final meeting of the House, Gerald L. Miller, M.D. of Kansas City was named President-Elect of the Association.

Joseph L. Fisher of St. Joseph was installed as 1970-1971 President succeeding Doyle C. McCraw of Bolivar. Dr. McCraw will continue to serve as a member of the Council for a term of one year.

Other elected officers were Vice-Presidents, Rolla B. Wray of Nevada, John R. Dixon of Brookfield and C. Howe Eller of St. Louis County; Speaker, E. D. Imes of Maryville; and Vice-Speaker, Robert A. Slickman, Kansas City. Stanley S. Peterson of Springfield and J. Loren Washburn of Versailles were re-elected as Delegates to the AMA and James C. Sisk of St. Louis County and Rae W. Froelich of Lebanon were reelected as Alternate Delegates to the AMA.

Odd numbered MSMA Councilor Districts elected representatives to serve on the Association's Council for the next two years. They are John N. Martin, St. Joseph, First District; Walter T. Gunn, St. Louis, Third District; James C. Cope, Columbia, Fifth District; R. Allen Chandler, Kansas City, Seventh District; and E. A. Stricker, St. James, Ninth District.

At the Council meeting which followed the final session of the House, Walter T. Gunn of St. Louis was named Chairman of the Council; E. A. Stricker of St. James was elected Vice-Chairman; John I. Matthews of Jefferson City was reelected Secretary; and Max S. Franklin of St. Louis was reelected Treasurer.

President-Elect Miller, a specialist in obstetrics and gynecology, served as Chairman of the MSMA Council during the past year. Born in Grenola, Kan. he graduated from Southwestern College, Winfield, Kan. and received both a Bachelor of Medicine and Doctor of Medicine degree from Northwestern University, Chicago. He served his internship at Kansas City General Hospital and then took a residency in obstetrics and gynecology, pathology and surgery at Kansas City General Hospital.

Gerald L. Miller, M.D.
President-Elect

Active in a number of professional organizations, Dr. Miller is a Diplomate of the American Board of Obstetricians-Gynecologists and a Fellow of the American College of Surgeons. He holds teaching appointments as Assistant Clinical Professor of the University of Kansas Medical Center; Clinical Professor of the University of Missouri Medical Center, Columbia; and is Chairman, Department of Obstetrics-Gynecology, Kansas City General Hospital and Medical Center.

Dr. Miller is a former President of the Jackson County Medical Society, as well as of Kansas City Blue Shield. He has just completed a term as chairman of the Missouri State Medical Association's Council.

Dr. and Mrs. Miller live at 836 West 51st Street, Kansas City. They have two children.

Major actions of the House of Delegates are highlighted in the MSMA News insert on page 286-A.

The 113th Annual Session of the Association will be held at the Chase Hotel in St. Louis on April 15-18, 1971.

Additional activities of the House will be included in the official minutes of the 112th Annual Session of the MSMA which will be published in the July issue of Missouri Medicine.

Mrs. William M. Walker Elected President of Woman's Auxiliary

Mrs. William M. Walker, Springfield, was elected President of the Woman's Auxiliary to the Missouri State Medical Association at its annual meeting at the Muehlebach Hotel in Kansas City on April 2-5.

Other Woman's Auxiliary officers for 1970-1971 are Mrs. Frank J. Valach, St. Louis County, President-Elect; Mrs. Thomas Thale, Ballwin, First Vice-President; Mrs. Charles E. Nickson, Jr., Kansas City, Second Vice-President; Mrs. Keith D. Jones, Warrensburg, Third Vice-President; Mrs. James Gordon, Jefferson City, Fourth Vice-President; Mrs. Charles R. Willman, St. Joseph, Recording Secretary; Mrs. Raymond J. Bozzo, Washington, Treasurer; Mrs. Donald Dowell, Chillicothe, Auditor; Mrs. F. T. H'Doubler, Jr., Springfield, Corresponding Secretary; Mrs. Henry C. Bauman, Maryville, Parliamentarian.

Mrs. Walker, whose monthly message to members of the MSMA will appear regularly in Missouri Medicine, was graduated from the State University of Iowa with a B.A. degree in psychology. She was employed as a teacher and a researcher for Iowa Child Welfare Research Stations.

Mrs. Walker has headed several of the State Auxiliary Committees, including the Homemaker-Home Health Aid Committee when this service was established in Greene County. She also served as Safety-Disaster Preparedness Chairman and Director and Auditor for the Auxiliary's State Board.

The new Auxiliary president's participation in community affairs is extensive. She is on the following boards: Springfield Workshops, Mayor's Council on Aging, Pershing School PTA, Cox Medical Center and the Springfield and State Association for Children with Learning Disabilities. She is past-president of Alpha Chi Omega Alumnae Club and the American Association of University Women in Springfield.

Mrs. Walker also is affiliated with SMMA, the Women's Division of the Springfield Symphony Orchestra, the Community Service League and the Citizens Against Drug Abuse Education Committee. She serves as a Junior Girl Scout leader and on the Dogwood Trails Public Relations Committee.

She and Dr. Walker have two children. Dr. Walker, an obstetrician and gynecologist, is chief of staff at Lester E. Cox Medical Center and a member of the staff at St. John's Hospital in Springfield.

A complete list of the Auxiliary District Directors and Committee Chairmen will appear in the July 15 roster issue of Missouri Medicine.

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Indications: Essential hypertension. Use cautiously in patients with renal insufficiency, particularly if they are digitalized.
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Special Feature

Medicine and Its Public Affairs

By
JOE D. MILLER
Director, Division of Public Affairs
American Medical Association

The following is a transcript of the address which Mr. Miller delivered at the Missouri State Medical Association's County Society Officers' Conference in Jefferson City on January 31. In his discussion of the structure, goals and service activities of the AMA's Public Affairs Division, Mr. Miller explains and emphasizes the increasing importance of unifying medicine's legislative voice in dealing effectively with the federal government.

Like the poor, government is very much with us. And, although we have fewer poor people in our society than we had a decade ago, we have a good deal more government at every level.

Ten years ago, for example, we could expect about 500 bills to be introduced in each Congress which could affect the nation's health care, directly or indirectly. These days, 1,600 or more bills of this kind will wind up in the hopper. This 91st Congress—only at the halfway point—has already introduced that many. And, it's not even breathing hard.

It would be pleasant to tell you that the skies are clear legislatively, and that the sun is shining. It would be pleasant, but totally inaccurate. There are already something in the neighborhood of 80 separate bills in Congress to allow the inclusion of chiropractic under Medicare. The chiropractors know how to apply *political* pressure, at least, and they have been pounding away at the subluxations of the Congressional spine with letterwriting campaigns in recent months. They're no slouches when it comes to anteing up political contributions, either. So, they are very much on the scene in Funland on the Potomac, and they are not to be taken lightly.

We also can look forward to Congressional hearings on our present welfare programs, especially Medicaid. Both the House Ways and Means Committee and the Senate Labor and Public Welfare Committee have indicated that comprehensive hearings may be coming up to study welfare, the costs of medical care and the so-called abuses under Medicaid. I think we can look for these hearings sometime in March, and I think we also can expect an examination of the various proposals made so far to develop a program of national health insurance.

Everybody is getting into the act on this one: Walter Reuther, Governor Rockefeller, George Meany and—for all we know at this point Eldridge Cleaver.

A knowledge of the subject is not considered necessary, and there are even some who consider such knowledge to be a handicap.

Notwithstanding the fact the AMA *has* knowledge of the subject and *has* studied the problem in depth, it has gone ahead anyway with the development of its tax credit plan or *Medicredit,* as it is called. We can expect our approach—along with the others—to get a full airing before Congress.

We have three important programs expiring this year: Hill-Burton, Heart Disease, Cancer and Stroke and Comprehensive Health Planning. Nobody seems to be completely clear about what will happen to *them.* And meanwhile, Congress and the President are not seeing eye-to-eye on such matters as the HEW Appropriation Bill. So this promises to be an action-packed session—not entirely coincidentally because this is an election year.

As for the administrative agencies of the federal government, the more laws they have to administer, the more regulations they have to write. And when you consider that even a good law can be fouled up with a bad regulation, don't forget that we also have some bad laws to worry about. Somehow, the AMA must keep on top of what government is doing, stop government from making bad mistakes where possible, and guide government into productive channels whenever it can. It's neither an easy job nor a simple job. It is difficult, complex and vitally important.

The work of dealing with the federal government is primarily entrusted to the Division of Public Affairs. When I say "primarily entrusted," I mean on a face-to-face basis.

Obviously, every Division of the AMA has a direct or an indirect involvement in what government is doing. So do the Councils and Committees and the other policy-making bodies. But, it is the Division of Public Affairs that deals with government on a routine, day-to-day basis.

Today, I want to give you a once-over-lightly view of the Division. To the extent that I can, I'm going to avoid specifics in the hope that their omission will help make explanation easier. For now, let's concentrate on the AMA's and the Division's goals, the staff elements available for attaining them and priorities for 1970.

Now, I have told you that the Division of Public Affairs is charged with helping the AMA deal effectively with government. It also is charged with providing services to the component and constituent societies. Through our 12 regional offices, we try to provide a direct linkage between the states and the AMA.

In Missouri's case, that means Tim Norbeck, working out of the regional office in St. Louis. He is your link with the AMA and unless you use him as such, he is a missing link. His job is to furnish liaison, trouble-shooting and clear channels for quick, two-way communications between your societies and Chicago.

That's staff element Number One: our assistant directors who serve in the field. These are the people you see most, and these are the people to whom you turn for information, communication, liaison and service.

Men like Tim Norbeck not only represent our own Division—Public Affairs—but every other division of the AMA. But as a practical thing, they spend the better part of their time on such matters as legislation, political education and—in an election year—helping to develop effective political action.

Staff element Number Two works at 535 North Dearborn. Its job is to provide direction and management, administrative backup, staffing for the Council on Legislative Activities and the AMPAC Board of Directors, legislative analysis and development, political education and overall coordination of staff activity.

The Chicago staff furnishes a relay point for communications between the AMA-Washington and the regional offices; between these staff units and the policy-making bodies of the AMA; and between your societies, the AMA and government itself. In other words, in Chicago, we try to pull together the many strands of organized medicine and combine them into a strong, single rope.

The Legislative Department in Chicago keeps on top of those 1,600 or so bills in the Congress, staffs the Council on Legislative Activities, helps prepare Congressional testimony and, on occasion, actually drafts legislation that the AMA would like to see enacted.

The Division's third staff element operates in Washington.

The AMA-Washington has two main departments, one to deal with Congress and the other to work with the federal agencies. The rest of the Division's Washington staff is essentially supportive and administrative.

There is, for instance, a library. It is in constant use by the lobbyists, members of Congress and people who cover the government agencies for purposes of fast, accurate reference.

Thus, the Division has, for purposes of simplification, three main staff groups: those in the field, those in Chicago and those in Washington.

But a fourth staff group must be mentioned at this point.

AMPAC is, as you know, a completely separate organization from the AMA. It has its own Board of Directors for policy-making purposes, its own offices at 520 North Michigan Avenue and its own staff.

In a nutshell, AMPAC's responsibility is to help the state political action committees elect medicine's friends to Congress. AMPAC has nothing to do with legislation. It does not lobby and does not, in fact, have any representatives in Washington. But, obviously, the success of the PAC movement bears heavily on every other factor in this complex equation of legislation, lobbying, governmental regulation and political education.

So, although it is separate and apart from the AMA, AMPAC's activities must be closely coordinated with the AMA's. The task of liaison with AMPAC also is a responsibility—a very important responsibility—of the Division of Public Affairs.

Toting it up once again, the Division has its regional staff, its Chicago staff, its Washington staff and the assignment of coordinating AMPAC into the overall activity.

Now let's talk about priorities for 1970.

First. We are out to unify medicine's legislative voice and to try to get all of us singing together in harmony. Somehow, we must all sing the same song at the same time. But if that sounds easy, it isn't.

It means, first of all, that physicians and the members of the Auxiliary must be kept informed on legislative and regulatory issues. And *that* isn't simple, because there are many issues and they are complex at best.

Here I am not only talking about legislation introduced into the Congress which the AMA hopes to modify or even defeat: I am also talking about the legislation that the AMA espouses and even originates. Think of it as "input"—as medicine's response to the problems of health which beset this country. If the medical profession is as knowledgeable about health problems as we know it to be, it is incumbent upon medicine to muster its best thinking in the effort to solve these problems.

Either we become problem-solvers and use our expertise or we leave health problems—by default—to the non-experts.

This is the thinking of the House of Delegates, the Board of Trustees and every other policymaking body within organized medicine. And it is a challenge to which medicine is responding.

Flowing steadily from the Council on Legislative Activities has been a series of legislative proposals. Some of these have been of overriding importance, such as the AMA's tax credit proposal or *Medicredit.* Other proposals originating from the AMA's acceptance of its role as problem-solver may seem, on the face of it, less important. But all of these ideas are constructive, and all of them are aimed at providing answers to existing problems.

So, when I say that we are seeking to unify medicine's legislative voice, I am talking not only about stopping what's bad or modifying what somebody else has proposed. I also am talking about getting our own ideas across to the Congress, our own approaches to problem-solving.

Clearly enough, we cannot transmit our thinking forcefully unless all of us know what we're thinking about, why we're thinking it and what we're hoping to do about it.

So, if this priority sounds like a lead-pipe cinch, believe me—it isn't. It's going to take real effort—in Chicago, in Washington, in the field and from your societies to your own members—if we are to do the job right.

Priority Number Two. Somebody of historical importance—probably one of the Founding Fathers—once remarked that the power to tax is the power to destroy. True enough.

Borrowing from that idea without apology, let me run another idea past you: The power to regulate is also the power to destroy. The task of regulating falls to the administrative agencies of government, and medicine had better know—day-by-day and hour-by-hour—how the administrative agencies are implementing existing laws.

Not only that, medicine had better know how the administrative agencies are *planning* to implement the existing laws—or interpret them, or redirect them or work quietly to revise or replace them. And don't think that legislation doesn't germinate, sometimes, within the federal agencies.

That's where the professionals in government pile up seniority under the protection of the Civil Service. Let us not make the mistake of assuming that they do not develop their own constituencies on Capitol Hill. They can and do. In fact, many a piece of far-reaching legislation has been conceived in the fertile mind of a bureaucrat and hatched in the incubator of Civil Service.

Priority Number Three. We must work more closely with the medical specialty organizations, recognizing that their problems with government are seldom so tightly focused as to become unimportant to our own, broader interests. The AMA's recognition of this is demonstrated by the establishment—this early in 1970—of a Department of Medical Specialty Services.

In our relationships with government, all of us—AMA, state or county society or specialty group—face similar problems. We must face them together, availing ourselves of one another's resources. We must, for in the words of Ben Franklin, we either hang together or we hang separately.

Furthermore, if we are better unified, we will be able to present our case far more persuasively, far more forcefully to government across-the-board. And by that, I mean from the White House to the State House.

And so the Public Affairs Division has three main priorities: It must work to unify medicine's legislative voice. It must work more closely, responsively and interpretively with the administrative agencies of government. It must work

(Continued on page 287)

DISCUSS THE FUTURE OF MSMA — Missouri Medical Association President Joseph L. Fisher, M. D., left, discusses future work of the Association with (from left to right) Council Chairman Walter T. Gunn, M.D., St. Louis; President-elect Gerald L. Miller, M.D., Kansas City; and Council vice chairman E. A. Stricker, M.D., St. James. Dr. Miller will succeed Dr. Fisher as Association President in 1971 at the annual meeting in St. Louis.

House of Delegates Has Busy Session

The 1970 Annual Session of the House of Delegates of the Missouri State Medical Association held April 2-5, at the Muehlebach Hotel in Kansas City was one of the busiest in recent years with 47 resolutions considered along with reports of officers, committee reports and numerous other items of business.

The following are among the decisions of the House of Delegates.

The House adopted the following new Association policy on abortion: 'The present abortion law should be repealed and changed to read 'an abortion should be considered illegal if performed by anyone other than a licensed physician in a place other than a licensed hospital."

Also approved was a change in the Association By-Laws which will allow both state and local societies to accept into regular membership osteopathic physicians who are licensed to practice in Missouri. Decision concerning such acceptance will be made by the county societies.

The House voted to recommend to the Missouri Legislature that the citizenship requirement be entirely removed from the qualifications for licensure to practice medicine in Missouri. Also approved was a resolve which called for the granting of temporary licenses to foreign medical graduates who have passed the ECFMG test and have adequate knowledge of the English language so that they could work in hospitals accredited by the Joint Committee on Accreditation under supervision of the hospital staff. Their work would be limited to hospitals.

The House adopted a resolution which urges education of the public concerning the facts of birth control; asks that provision be made for the medically indigent, when they desire, to obtain birth control information and supplies under the welfare program, including sterilization when indicated.

Also adopted by the House was a resolution reaffirming the Association's position in favor of changes in the suspected drunken driver test bill in Missouri which would correct deficiencies in the law's wording and at the same time would change the definition in the law to read that a person who has blood alcohol level of .10 milligrams of alcohol per 100 millileter of blood would be declared intoxicated. The present law reads .15 milligrams.

The House urged that the Missouri Public Service Commission be instructed to require all ambulances in the state to carry the minimum equipment as suggested by the American College of Surgeons, that the attendants and drivers on all ambulances be trained to meet the standards of the American Red Cross for an instructor's rating, and that all physicians make themselves available to help the present ambulance operators comply with these regulations by instructing their personnel and demonstrating the proper use of the equipment.

The House adopted a by-laws

(Continued on Back Page)

MSMA
News

Annual Session (Continued)

change as proposed by the Committee on Constitution and By-laws which completely rewrites Chapter VII of the Association's By-Laws setting up a Committee and Commission system in place of the present committee system.

The House approved a plan under which the MSMA Council would develop an indoctrination program for new members of the Association. New members would be required to attend this program within the first three years of their practice of medicine after joining the organization unless an appropriate excuse is accepted by the Council.

The House voted to recommend to the Council that a special Ad Hoc Committee be named to study both Blue Shield Plans in Missouri considering the relative merits and problems inherent in both with the intent of improving the benefits to the subscribers and rapport with the physicians.

Several resolutions were introduced and adopted which included criticisms of the handling of the Part A Medicare Program in Missouri by St. Louis Blue Cross along with suggestions for solving the problems which have arisen.

LYMAN PHOTO, KANSAS CITY

CHANGE OF COMMAND — Doyle C. McCraw, M.D., Bolivar, retiring president of the Missouri State Medical Association, (left) presents the gavel of office to new President Joseph L. Fisher, M.D., St. Joseph, at the annual banquet on Saturday night, April 4 in Kansas City.

CHECKS FOR MEDICAL SCHOOLS — Checks totaling $34,173.96 were presented to representatives of three Missouri medical schools from the American Medical Association Education and Research Foundation by Doyle C. McCraw, M.D., Bolivar (right), immediate past president of the Missouri State Medical Association, during the state association's annual meeting in Kansas City April 2-5. Looking on at the left is Missouri Lieutenant Governor William Morris who was a speaker at a luncheon during the meeting. Receiving the check were second from left to right. Robert H. Felix, M.D., Dean of the St. Louis University Medical School — $14,545; William D. Mayer, M.D., Dean of the University of Missouri Medical School—Columbia — $4.943.84; and William H. Danforth, M.D., vice chancellor for Medical Affairs, Washington University — $14,684.06. Members of the American Medical Association and Auxiliary contributed $1,164,048.47 to the AMA-ERF during 1969.

more closely with the specialty societies at the common task of dealing responsibly, effectively and constructively with government at every level.

This is not to say that this Division will direct its efforts in no other directions. It will. It will seek to improve its services to your societies. It will work to help you increase your membership, as well as the AMA's. It will break its collective neck to help you—and the AMA—retain members. It will be out to improve the quality and quantity of its political education. As for AMPAC it has ten priorities only. The first nine in this election year are to help the State PACs put medicine's friends in Congress. The tenth priority is to increase PAC membership. And this priority is the bedrock upon which the other nine must rest.

I can tell you about the PAC movement and AMPAC's priorities for 1970, because some of my best friends are PAC members and because I take a particular and personal interest in an organization that I think is invaluable to medicine.

These, then, are the components of our complex equation: Service to you; Legislative action; Political education. And the coordination of all of these with the activities of the PAC movement.

One last word. Public affairs, as we see it, is something like a high-compression, eight-cylinder motor. Either it works properly, or it doesn't. When it doesn't, the horsepower drops off drastically. It doesn't matter whether the fault is carburetion, ignition or a seagull in the air-intake Suddenly, the entire mechanism is limping or it stalls.

Similarly, the components with which this Division must operate are interdependent. If one of them develops a knock, the others lose power. They *must* interact properly together as functioning mechanisms to develop the horsepower of which—at their efficient best—they are capable.

I ask you to keep your ears attuned, as experienced mechanics, for the first warning pings that signal trouble. And I ask you to tell us what you hear, and diagnose, if only tentatively—the fouled spark plug or the obstruction in the gas line. For this is, after all, an engine designed for your use.

I want you to know that every member of this Division is committed to the importance of what he does, of what all of us do and of the necessity of making this intricate mechanism work to your benefit, to the AMA's and, most important of all, to the benefit of the patients whom all of medicine seeks to serve.

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AMA Convention Offers Top Program to Interest All

Chicago, the city with a proven knack for news and a demonstrable warmth of reception for all, will host the 119th Annual Convention of the American Medical Association June 21-25.

Combining the world's largest medical meeting with the nation's convention capital provides the ideal opportunity to present a comprehensive scientific program in incomparable facilities. For the "medical family," it will all be there—postgraduate education presentations for physicians, community service stimuli for their wives in the Woman's Auxiliary's concomitant meeting and recreational diversions for their sons and daughters.

The hub of the Scientific Program (which will be published in its entirety in the May 4 issue of *JAMA*) will be the International Amphitheatre on Chicago's Near South Side. This huge complex, site of many of America's most memorable political conventions, is fully air conditioned and its expanse permits presenting the entire AMA scientific program on one floor under one roof.

More than 10,000 physicians in general practice and all the specialties are expected to attend, together with another 20,000 allied health professionals and guests.

Approximately 450 scientific and industrial exhibits will be staffed by pharmaceutical manufacturers and suppliers of medical materials and services and by many of the world's most prominent medical researchers and practitioners. All 23 sections of the Scientific Assembly will be represented. Four general scientific meetings will be addressed to *Coma and the Diagnosis of Death, Conception Control and Abortion, The Role of Allied Health Professions in the Delivery of Health Care* and *Family Life and the Physician.*

Among the special exhibits will be fresh tissue pathology, fractures, pulmonary function, resusitation, arthritis and laboratory medicine.

Seven sessions under the Section of Special Topics will cover suicide, adverse reactions, drug interactions, neurological surgery, occupational diseases, plastic and maxillofacial surgery and nuclear medicine. In addition, the 10th Multidiscipline Research Forum will present 50 papers prepared by prominent scientists.

The AMA Annual Convention also is the time for honoring those who have made major contributions to medicine. Among the citations to be conferred are the Hektoen and Billings Awards, the Joseph Goldberger Award in Clinical Nutrition, the Distinguished Service Award, the Scientific Achievement Award, and the Citation of a Layman for Distinguished Service.

The scientific program will also feature an extensive motion picture program, the high school student winners of AMA honors for their exhibits presented at the 1970 International Science Fair, and the winning exhibitors from the Student American Medical Association competition. The Fireside Grand Rounds are still another outstanding opportunity for physicians to discuss medical interests with eminent colleagues.

Hours of attendance at the Amphitheatre will be 10 AM to 5 PM on the opening day, Sunday, June 21, and from 8:30 AM to 5 PM on successive days to the closing on Thursday, June 25.

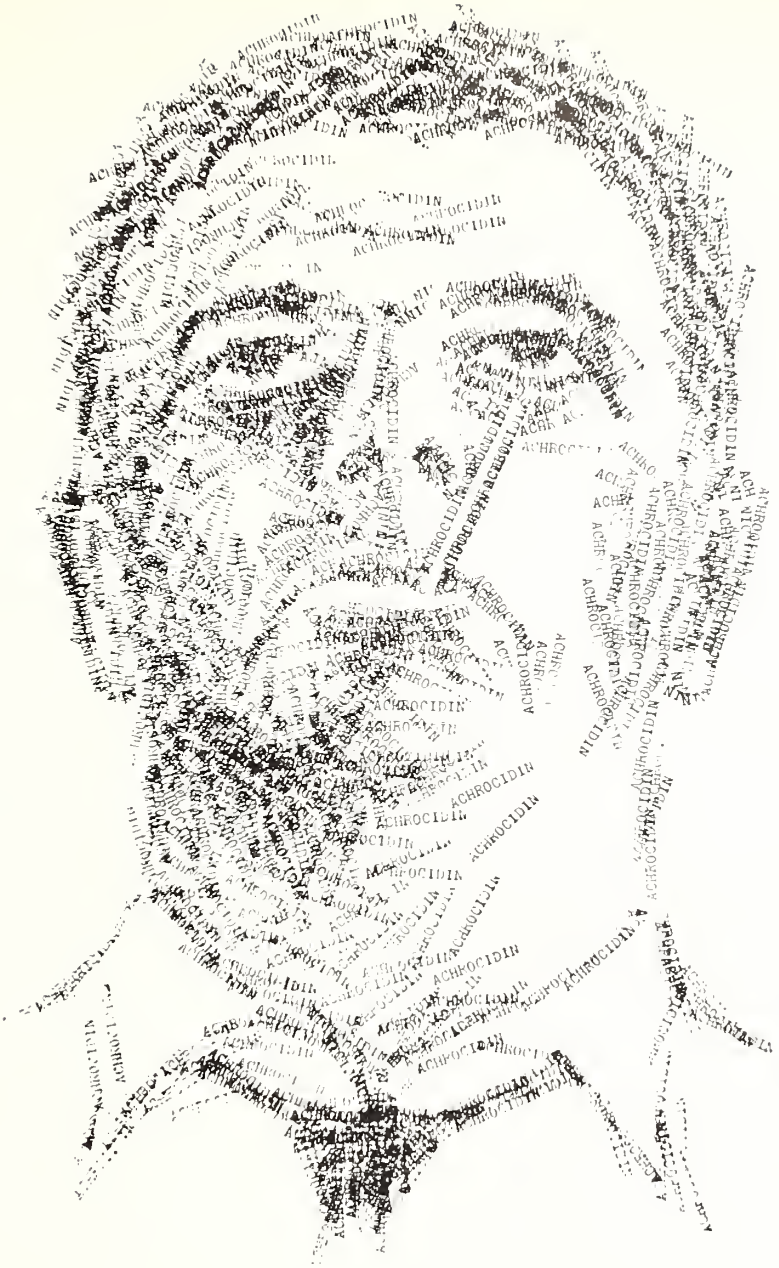
A special consideration is that physicians *only* will be admitted in the Amphitheatre up to 12 noon on *Tuesday, Wednesday and Thursday.*

The AMA will provide free bus transportation between major downtown hotels and the Amphitheatre each day. Another transportation convenience will be provided on Wednesday and Thursday for departing registrants: the Continental Air Transport Company will schedule bus service at 30-minute intervals from the Amphitheatre direct to O'Hare International Airport at $2 per person. On Wednesday, the buses will operate between 2:30 PM and 5 PM and from 2 PM to 4:30 PM on Thursday.

Physicians who find they have too many bases to cover can be well-briefed on the meeting highlights by viewing the special closed circuit TV programs transmitted to sets in downtown hotel rooms. The color telecasts will present major news of the scientific program, actions of the AMA House of Delegates, special events, and topics for women's interest. In addition, the convention's *Daily Bulletin* will be published and distributed in hotels throughout the week.

Receptions, luncheons and dinners for alumni organizations and specialty groups will abound and these "timetables" will also be carried by *JAMA* May 4.

Among the most colorful programs during the



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Warning: In renal impairment, since liver toxicity is possible, lower doses are indicated; during prolonged therapy consider serum level determinations. Photodynamic reaction to sunlight may occur in hypersensitive persons. Photosensitive individuals should avoid exposure; discontinue treatment if skin discomfort occurs.

Precautions: Drowsiness, anorexia, slight gastric distress can occur. In excessive drowsiness, consider longer dosage intervals. Persons on full dosage should not operate vehicles. Nonsusceptible organisms may overgrow; treat superinfection appropriately. Treat beta-hemolytic streptococcal infections at least 10 days to help prevent rheumatic fever or acute glomerulonephritis. Tetracycline may form a stable calcium complex in bone-forming tissue and may cause dental staining during tooth development (last half of pregnancy, neonatal period, infancy, early childhood).

Adverse Reactions: *Gastrointestinal*—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. *Skin*—maculopapular and erythematous rashes; exfoliative dermatitis; photosensitivity; onycholysis, nail discoloration. *Kidney*—dose-related rise in BUN. *Hypersensitivity reactions*—urticaria, angioneurotic edema, anaphylaxis. *Intracranial*—bulging fontanels in young infants. *Teeth*—yellow-brown staining; enamel hypoplasia. *Blood*—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. *Liver*—cholestasis at high dosage.

Upon adverse reaction, stop medication and treat appropriately.

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535-9

Convention will be opening of the AMA House of Delegates on Sunday in the Grand Ballroom of the Palmer House and the Inaugural Ceremony installing Walter C. Bornemeier, M.D., as the Association's 124th president in the Ballroom on Wednesday, followed by the President's Reception in the Monroe and Adams Rooms of the Palmer House.

The House of Delegates will meet each day in the Palmer House, except on Monday when the reference committees discuss resolutions introduced by the state delegations.

The Woman's Auxiliary to the AMA will hold its 47th Annual Convention Sunday through Wednesday at the Drake Hotel.

Chicago is a popular summer vacation city, and the special program for youngsters and teenagers of medical families promises a memorable and educational visit.

For each physician's convenience, advance registration forms are being published periodically in *JAMA*. There is no advance registration for Auxiliarians, but the desk will open at 11 AM in the Drake Hotel on June 21. Information on youth activities programs is being sent to officers of state and county Auxiliaries for relay to their memberships.

AMA . . . at your service

535 North Dearborn Street
Chicago, Illinois 60610

The AMA announces the availability of the 12th guide in the series, "Guides to the Evaluation of Permanent Impairment," developed by the Committee on Rating of Mental and Physical Impairment. It is entitled "Guides to the Evaluation of Permanent Impairment—The Skin."

This guide, like all the others in the series, has been designed primarily for use by physicians. The guide is, however, of interest and use to all concerned with the medical, administrative or judicial aspects of programs for the disabled. The previously published guides in the series deal with the extremities and back; the visual system; the cardiovascular system; ear, nose, throat, and related structures; the central nervous system; the digestive system; the peripheral spinal nerves; the respiratory system; the endocrine system; mental illness; and the reproductive and urinary systems.

This guide was published recently in the *Journal of the American Medical Association*. A limited number of copies may be obtained, without charge, upon written request to the Committee on Rating of Mental and Physical Impairment, 535 North Dearborn Street, Chicago, Ill. 60610.

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pediatric and geriatric hypothyroidism, hypopituitary hypoth
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Precautions: As with other thyroid preparations, an overd
may cause diarrhea or cramps, nervousness, tremors, tachyc
vomiting and continued weight loss. These effects may begin
four or five days or may not become apparent for one to three w
Patients receiving the drug should be observed closely for sig
thyrotoxicosis. If indications of overdosage appear, discor
medication for 2-6 days, then resume at a lower dosage lev
patients with diabetes mellitus, careful observations should be
for changes in insulin or other antidiabetic drug dosage re
ments. If hypothyroidism is accompanied by adrenal insufficien
Addison's Disease (chronic subcortical insufficiency), Simmo
Disease (panhypopituitarism) or Cushing's syndrome (hypera
alism), these dysfunctions must be corrected prior to and d
SYNTHROID (sodium levothyroxine) administration. The
should be administered with caution to patients with cardiovas
disease; development of chest pains or other aggravations o
diovascular disease requires a reduction in dosage.

Contraindications: Thyrotoxicosis, acute myocardial infarctio

Side effects: The effects of SYNTHROID (sodium levothyr
therapy are slow in being manifested. Side effects, when th
occur, are secondary to increased rates of body metabolism: s
ing, heart palpitations with or without pain, leg cramps, and w
loss. Diarrhea, vomiting, and nervousness have also been obse
Myxedematous patients with heart disease have died from a
increases in dosage of thyroid drugs. Careful observation c
patient during the beginning of any thyroid therapy will ale
physician to any untoward effects.
In most cases with side effects, a reduction in dosage follow
a more gradual adjustment upward will result in a more acc
indication of the patient's dosage requirements without the ap
ance of side effects.

Dosage and Administration: The activity of a 0.1 mg. SYNTH
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grain thyroid, U.S.P. Administer SYNTHROID tablets as a s
daily dose, preferably after breakfast. In hypothyroidism wi
myxedema, the usual initial adult dose is 0.1 mg. daily, and m
increased by 0.1 mg. every 30 days until proper metabolic bala
attained. Clinical evaluation should be made monthly and
measurements about every 90 days. Final maintenance dosag
usually range from 0.2-0.4 mg. daily. In adult myxedema, st
dose should be 0.025 mg. daily. The dose may be increased t
mg. after two weeks and to 0.1 mg. at the end of a second two w
The daily dose may be further increased at two-month interva
0.1 mg. until the optimum maintenance dose is reached (0.1-1.
daily).

Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 m
mg., 0.5 mg., scored and color-coded, in bottles of 100 and 500. I
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N.F., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chl
Injection, U.S.P., as a diluent.

SYNTHROID (sodium levothyroxine) INJECTION may be adn
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100 mcg. per ml. If significant improvement is not shown the fo
ing day, a repeat injection of 100-200 mcg. may be given.

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medical melange

Notes of interest from Here . . . . and There

A scroll containing the name of each member of the **Cape Girardeau County Medical Society** was presented to **Dr. Glenn R. Tygett**, an ophthalmologist in Cape Girardeau for 36 years, at a surprise retirement party in his honor recently at the Cape Girardeau Country Club. The scroll was presented to the honored doctor by his nephew, **Dr. R. A. Ritter**, a long-standing member of the Society. Approximately 40 doctors and their wives attended the party which marked the end of Dr. Tygett's 46-year career in medicine. The special recognition took place during the annual Doctor's Day Party sponsored by the Society's Medical Auxiliary.

Dr. W. D. Bradshaw of Clinton, Councilor for the MSMA Sixth District, has been nominated for the 1971-1972 governorship of Rotary District 607, which includes an area between Springfield and Kansas City. Dr. Bradshaw also was elected president of the Clinton Rotary Club last month.

Gov. Warren E. Hearnes has appointed **Dr. Wyeth Hamlin** of Hannibal and **Sen. Albert M. Spradling, Jr.** of Cape Girardeau to the Missouri Regional Medical Program Advisory Council. The group formerly was known as the Advisory Council on Heart, Stroke and Cancer. Gov. Hearnes also has reappointed three members of the council: **Rep. Don Hancock,** Doniphan; **Dr. Hector W. Benoit, Jr.,** Kansas City; and **Mr. Robert E. Frank,** director of Barnes Hospital in St. Louis.

Dr. R. E. Harland has received the distinguished service award of the Arcadia Valley Jaycees. Dr. Harland was chosen as the Valley's outstanding citizen on the basis of his service to St. Mary's of the Ozarks Hospital for his volunteer service as medical advisor to the Iron County Selective Service Board for 25 years.

Dr. Pat A. Barelli of Kansas City and **Dr. Daniel D. Klaff** of St. Louis are among the 25 distinguished specialists from the United States who have been invited by Leiden University in Holland and Odense University in Denmark to be members of the teaching faculty for a Boerhaave Postgraduate Course in "Functional Corrective Surgery of the Nasal Septum and External Pyramid" in Leiden on August 30-September 9.

Dr. C. W. Chastain, Farmington, attended a meeting of the Governor's Special Task Force on accessibility to medical care in Columbia recently. The task force is conducting investigations throughout the state of Missouri to determine the availability of medical services and means of improving this availability.

WASHINGTON

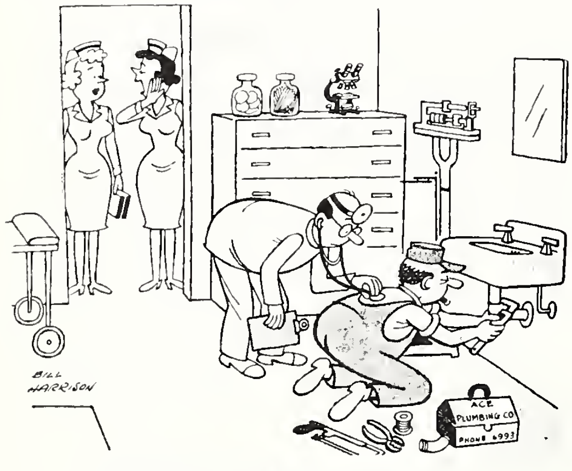
The Nixon Administration proposed that prepaid, closed-panel group practice health care be authorized under both Medicare and Medicaid.

The American Medical Association recommended to the House Ways and Means Committee a new Medicaid plan utilizing existing private health insurance mechanisms to replace the present program of health care assistance for the medically indigent.

Robert H. Finch, secretary of Health, Education and Welfare, said Congress would be asked to approve legislation authorizing "health maintenance contracts guaranteeing health services for the elderly and the poor at a single fixed annual rate for each person served."

"In the case of Medicare," Finch said, "the patient will be entitled under such a contract to all of the usual Medicare services plus preventive services. The contract price will be negotiated in advance at an amount less than the Social Security Administration presently pays for conventional Medicare benefits in the locality.

"Similarly, under Medicaid we are seeking authority for the states to offer to the poor the option of securing services under such health maintenance contracts. We propose to work with the individual states toward the modification of their present programs in this regard and to encourage their use of the experimental authority previously mentioned for the testing of a variety of different contractual arrangements.



"The doctor is hoping to break even."

"The cornerstone of this new option in federal health purchasing will be the opportunity for consumers to choose between alternatives. The ultimate goal will be to give every beneficiary of these programs a choice between obtaining services from a health maintenance organization or arranging for them in the usual way from individual doctors and hospitals. He will have the choice of withdrawing from enrollment in a health maintenance organization if he finds the service unsatisfactory. The government will have the choice of entering into arrangements with individual health maintenance organizations, subject to special standards including assurance that every contractor will serve persons of high medical risk as well as the healthy."

Earlier, HEW Undersecretary John G. Veneman told the house committee that it was planned to call the new approach under Medicare Part C—to provide all services covered under Parts A and B "plus preventive services." He estimated a saving of about $15 per person, but some committee members were skeptical that more services could be provided at less cost.

Both Finch and Veneman made clear that one of the main objectives is a fundamental change in the nation's system of health care delivery. They said states would ask to repeal existing laws restricting prepaid group practice. They said that future federal medicaid funds might be made contingent on states eliminating "legal barriers to all forms of health delivery organizations."

"Let me conclude by saying that our broad objective is to frame an effective and reasonable approach to meet the health needs of the American people," Veneman said. "Obviously, the federal government by itself cannot redirect the total health delivery system. We can, however, do our best to make sure that the vast expenditures of the federal government in the health care industry are used in a way that will contribute to the evolution of an improved, more effective, more economical system to deliver health care to our people. To the extent we are successful, we will be delivering the maximum benefit from the public funds entrusted to us. But what is equally important, we will be providing valuable support for improvement of the total health care system, public and private. In that way, we will be helping to improve the delivery of health services for all the American people."

Dr. Russell B. Roth, speaker of the AMA House of Delegates, told the House committee that Medicaid "has demonstrated some weaknesses which badly need correction."

A new program, he said, should "provide the Congress with a basis for reasonable predictable costs; ease the burden on the states; assure total implementation; and, while maintaining a level of quality, insure that the costs of the program remain within the range of acceptability."

The program recommended by the AMA had these features:

1. Each eligible person (or family) would receive a certificate to be redeemed by a qualified health insurance company offering a health insurance policy or contract of certain basic health benefits such as hospitalization, medical care, preventive care and diagnostic and outpatient care.

2. The premium cost for such policy or contract would be assumed by the federal government from its general revenue fund.

3. The states, freed from the expense of financing the basic costs of health care for their indigent and medically indigent residents, could provide supplementary benefits. These might include, for example, skilled nursing home care and dental services.

4. The determination that an insurance policy or contract, and the company offering same, are "qualified" would be made by a state agency which customarily has that authority. However, changes in the scope of benefits and guidelines or standards to be used by the insurance departments in judging the company and the plan it offers would be established by a national board appointed by the President.

5. All individuals and families below a certain level of income would be eligible to participate. A simple determination of eligibility could be made by the appropriate federal agency on the basis of income or an even more refined criterion could be used such as tax liability. The program could require marginal needy families to participate in the expense of the premium charge by paying a small part of it, varying such participation in direct proportion to this tax liability.

6. For the lower income family there would be no deductibles and no co-insurance features.

7. To insure a high level of quality and to prevent cost escalation, the program would provide for a system of "peer review," organized and conducted in a manner to assure its success.

As to those services and charges which are within the purview of the medical profession, appropriate medical societies would be given the task of establishing a peer review mechanism that would, among other things, review individual charges and services wherever performed; review hospital and skilled nursing home admissions as to their medical necessity, and stays in hospitals and skilled nursing homes as to their continued medical necessity; and review the need for the professional services provided in the institution.

In the case of fraud or other clear intentional and gross misconduct, the peer review committee would be expected to bring charges before the appropriate licensing body.

To assist peer review committees in becoming established and in their operation, the program should provide for federal participation in the cost incurred in developing the program and its operation. To assure participation by members of the profession, those who serve on peer review committees should be held harmless from any actions or claims based on their decisions as to the necessity or quality of the services provided or the reasonableness of the charge.

In the event that a peer review committee is not established by the appropriate medical society within a reasonable time, or although established is not functioning, the Secretary of Health, Education and Welfare in consultation with the medical society would be empowered to appoint a committee to so act.

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Volume 67, Number 5—May, 1970

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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DAVID F. FARDON, M.D., *Columbia*

Osteomyelitis of the Scapula in an Infant

Case Report

Osteomyelitis in its protean forms and ubiquitous distribution has frustrated the genius of researchers and clinicians throughout the history of medicine. Buchman[1] has reviewed the fascinating history of this disease and its treatments. That all of this talent and devotion have not produced a successful endpoint in the recognition, understanding and treatment of osteomyelitis, however, is obvious to anyone treating this disease.

Our newborn patient with staphylococcal, hematogenous osteomyelitis of the scapula is unusual in many respects. I will critically examine some of the factors which are unique to this type of osteomyelitis and review the current concepts of this disease.

Case Report

This male infant was born on June 1, 1967, the product of a full-term, uncomplicated pregnancy and a sterile, vaginal delivery. Birth weight was 7½ lb and APGAR was ten. The neonatal course was normal except for a mild excoriation of the foot treated with bacitracin ointment. He received no injections and was discharged from the hospital on June 9. He progressed well until July 13 when, at the age of 43 days, he became febrile. His siblings were well, and he had had no known injury. Thirty-six hours later, he was brought to the University of Missouri Medical Center emergency room. He appeared toxic. His temperature was 104F (40.0C) rectally. Heart rate was 160 beats per minute. He was not moving his right shoulder and a vague suggestion of swelling was noted in the right supraclavicular area. Hemoglobin level was 11.3 gm/100 cc; hematocrit value, 38%; white blood count (WBC), 17,900/ cu mm with 50 polys. Spinal fluid obtained by lumbar puncture was normal.

A diagnosis of sepsis was made and a course of penicillin and kanamycin was initiated. Blood culture grew staph aureus, coagulase positive, penicillin sensitive. A chest x-ray showed a questionable left upper lobe infiltrate, but the chest was clear to clinical exam and subsequent chest x-rays revealed no infiltrate. X-rays of the right arm and clavicle were negative. Twelve hours after admission, his temperature fell to 101F (38.3C). Twenty-four hours later, there appeared to be marked improvement in his general course.

On the second hospital day, another chest x-ray was interpreted as normal, although, in retrospect, very early changes of demineralization in the right

A case report of acute, hematogenous, staphylococcal osteomyelitis of the scapula, an unusual site, in an infant. In his critique of factors unique to this type of osteomyelitis, the author points out that the disease produces less toxicity and earlier x-ray signs in an infant than in older children. Also, recovery is more rapid. Dr. Fardon is from the Department of Orthopedic Surgery, University of Missouri-Columbia Medical Center.

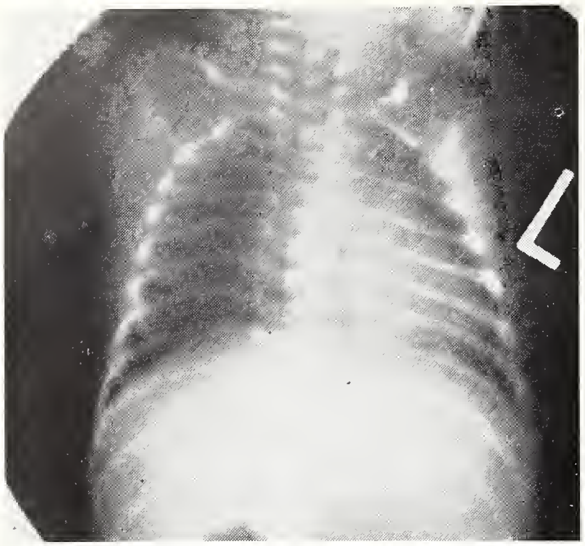

Fig. 1 X-ray was taken three days after the first symptoms. Very early demineralization is present in the area of the spine of the right scapula.

scapula can be noted (Fig. 1). He still was not using his right arm on the fifth hospital day. Although there was very slight diffuse swelling in the area of the acromioclavicular joint, the impression at that time was a neurologic deficit, possibly a previously unrecognized brachial plexus injury.

On the tenth hospital day, a slight swelling was noted posteriorly in the suprascapular area and x-ray (Fig. 2) revealed boney destruction of the scapula. Needle aspiration of the suprascapular fossa retrieved 7 cc of pus, cultures of which subsequently proved to contain penicillin-resistant staph aureus. His fever was minimal and he had seemed generally well during this period. At this time his hemoglobin level was 83gm/100cc and WBC was 15,000/cu mm. On the following day, the suprascapular fossa was explored through a small incision and 15 cc of pus and two loose cancellous and thin cortical bone fragments measuring 1 cm x 1 cm x .5 cm were found. The superomedial border of the scapula was partially destroyed. Fifty cubic centimeters of blood were given and the wound was closed over a drain which was removed on the seventh postoperative day.

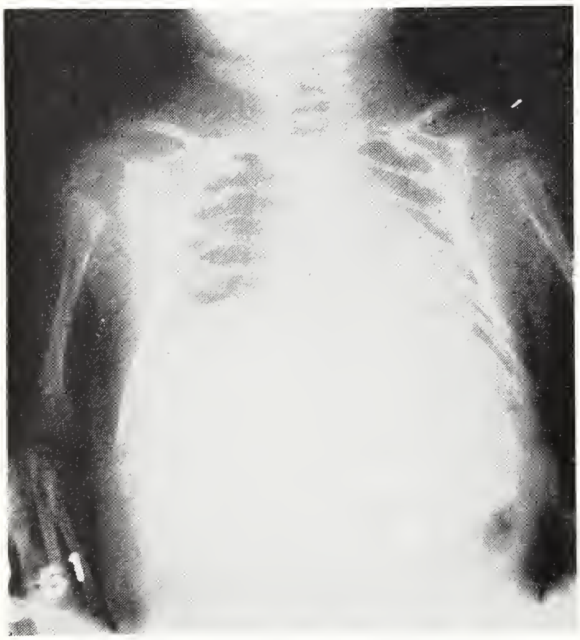

Fig. 2 X-ray taken 11 days after the first symptoms shows extensive destruction of the superior portion of the right scapula.

The patient remained afebrile throughout his subsequent course and was discharged on the 12th postoperative and 22nd hospital day. At the time of discharge, he actively used the right upper extremity and had a full range of painless motion at the shoulder, although x-ray showed extensive destruction of the scapula (Fig. 3). He continued taking antibiotics for six weeks. Seventy-five days after the illness there was nearly complete restoration of the scapula (Fig. 4). He progressed well and had no apparent sequelae one year after the illness (Fig. 5).

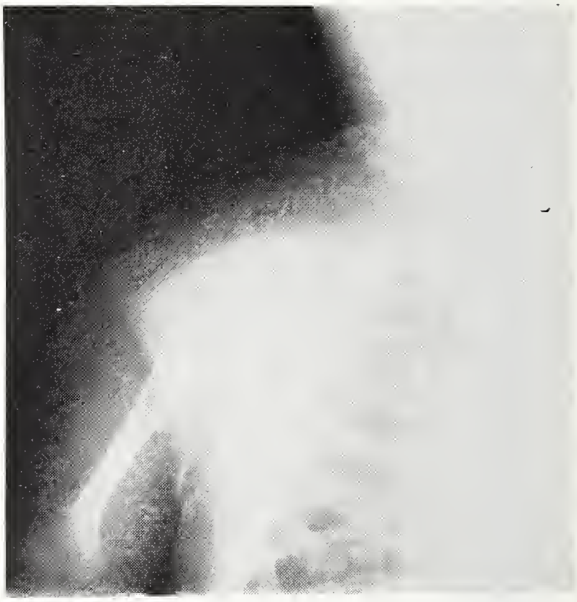

Fig. 3 This film taken through a bandage on the 22nd day reveals the extent of destruction of the right scapula.

Discussion

Osteomyelitis in the young infant is relatively rare and most large series of hematogenous osteomyelitis include relatively few patients in this age group. Both Blanche,[2] who reported on 25 infants less than one year old, and Gilmour,[3] who reported on 32 infants less than three months old, however, noted that in the changing epidemiology of osteomyelitis, the incidence is increasing in the younger child.

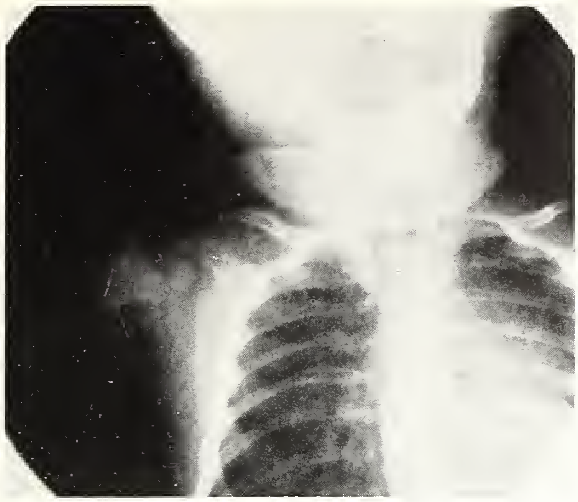

Fig. 4 Seventy-five days after the illness began, there was nearly complete restoration of the scapula.

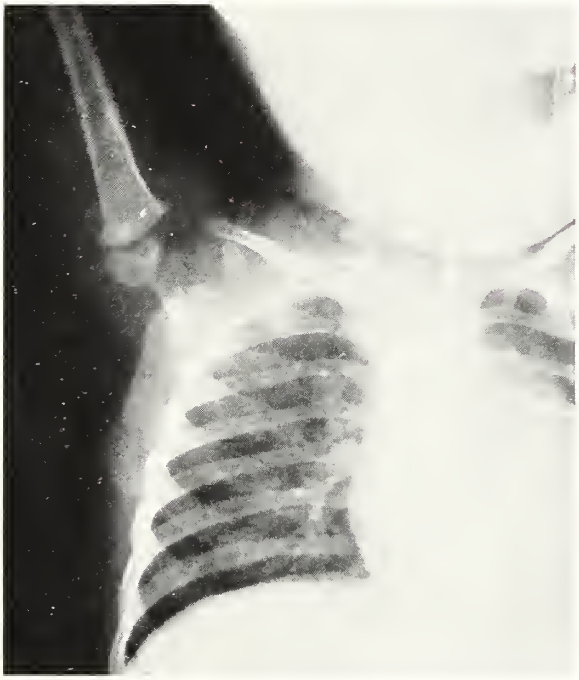

Fig. 5 At one year after the illness, there is no detectable residual x-ray abnormality.

Osteomyelitis of the scapula is rare, though it has been reported.[2–6] The femur is the bone most often involved in all age groups, but the infant shows a particular predilection for the involvement of membranous bones. Eleven of Gilmour's[3] 32 cases and six of Clarke's[7] 24 patients involved the maxilla.

Many authors[2–4, 7, 8] have observed the differences between the clinical course of hematogenous osteomyelitis in the infant and that in the older child. The infant has less fever, less toxicity and a dramatically elevated white count less often. The most notable symptoms in the infant are local swelling and loss of function of the involved part. When swelling occurs in an area where it is difficult to detect, as in our case, pseudoparalysis may be the only obvious finding and may lead to a mistaken diagnosis. A focus of destruction in the metaphysis followed by extra-cortical new bone formation, as seen by x-ray, occurs at times in the first week in the infant, whereas in the older child, these changes will seldom be seen before ten to 14 days. Gilmour[3] reports 48% positive blood cultures in neonates and Clawson[9] reports 50% for all ages.

Because of the frequent absence of toxicity, some authors have referred to this disease as a "benign" form of osteomyelitis. Others have disagreed with this terminology because of the significant associated mortality. The pathological chain of events are explained nicely by Dickson.[10] He believes that the original problem is sepsis and that if the sepsis resolves, there is no osteomyelitis; if a local embolus persists, there is the usual form of osteomyelitis; if neither happens, all the ravages of septicemia may occur and osteomyelitis may be but one relatively minor manifestation.

The usual pathogenesis of hematogenous osteomyelitis involving the metaphyses of children is detailed by Clawson[9] and Trueta.[11] The different course in the infant is explained by Clarke,[6] Green[12] and Einstein.[8] They state that in the infant, the cortex is thin and the periosteum strips easily; therefore, the pressure which produces the necrosis and leaves the sequestra in the older child does not develop. Buchman[1] adds that the intraosseous vascular spaces are larger in the infant. This allows the inflammation and purulence to arise and spread without inducing pressure necrosis. The slowed circulation and presence of end-arteries in the metaphysis may predispose to involvement of this area in the infant as well as the older child. The reason for increased incidence in membranous bone in the infant remains unexplained. Virtually all authors whose reports appear after the introduction of penicillin agree that staph is the leading cause of hematogenous osteomyelitis, especially in infants. Trueta[11] states that a staphylococcal toxin produces coagulation in the already stagnant flow of the metaphyseal sinusoids.

There are several sites which have been suspected of being initiating foci of infection in hematogenous osteomyelitis. The umbilicus is one portal of entry which is peculiar to the neonate. It seems unlikely that in our case the presence of a superficial skin infection, which cleared a month before the osteomyelitis became symptomatic, could have been causally related to the subsequent disease.

TREATMENT

Early treatment consists of rest and appropriate antibiotics. Antibiotics are best chosen by bacterial culture and sensitivity. While awaiting this, one should use an antistaphylococcal agent.

Because the infection may be diffuse and sequestra are infrequent, operative treatment may not be necessary in infants even when recognition of the disease is late. We agree with Gilmour[3] that operative treatment is not indicated in the very early phase, especially if the child is septic. The decision to operate later must be made by evaluation of the local signs and symptoms. The indications for operation are similar for draining localized pus and debris in soft tissue infections in any age group. This is a relatively minor procedure, and no attempt at extensive debridement or saucerization is indicated.

PROGNOSIS

The major complications during the acute phase are those arising from sepsis. The mortality from osteomyelitis of infancy is difficult to evaluate because those patients who succumb are often regarded as having died from sepsis and not included in series of osteomyelitis.

The local complications in the infant are epiphyseal destruction, joint destruction and, occasionally, displacement of the epiphysis. Joint destruction occurs most commonly in the hip joint.

Sequestra, chronic infection and draining sinuses rarely form after osteomyelitis of infancy. If the epiphysis and joints are not involved, there probably will be no sequelae. Even if considerable early epiphyseal damage is apparent, remarkable bone regeneration occasionally occurs at the epiphyses.[13]

SUMMARY

An infant with hematogenous, staphylococcal osteomyelitis of the scapula is reported.

The patient had a relatively nontoxic course. There was difficulty in diagnosis initially despite relatively early x-ray clues. The infant had a rapid recovery with rapid regeneration of the diseased bone and no sequelae. These are all characteristics commonly found in osteomyelitis in the infant.

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Eighth Annual Pediatric Seminar

The Eighth Annual Pediatric Seminar on *Adolescence* will be held at the Baptist Memorial Hospital, 6601 Rockhill Road, in Kansas City at 9 AM on May 15. The lecturer will be Dr. Jerome T. Y. Shen, assistant clinical professor, St. Louis University Medical School, who is a member of the Missouri Committee of the 1970 White House Conference on Children and Youth. He is chairman of the Committee on Youth, Missouri Chapter of American Academy of Pediatrics, and the Committee on the Care of Adolescents in Private Practice, Society for Adolescent Medicine. Registration will be from 8 AM to 9 AM. The fee is $25.00.

E. L. LICHTI, Ph.D., M. TURNER, B.S., M. S. DEWEESE, M.D. ***and***
J. H. HENZEL, M.D., ***Columbia***

Zinc Concentration in Venous Plasma Before and After Exercise in Dogs

Zinc is an element which has many wide and varied functions in the physiological processes of the body. To date, zinc has been found in all of the tissues of the human body and has been investigated as an influential factor in the physical growth and maturation of the male, wound healing and respiration. Zinc is an integral part of the enzyme, carbonic anhydrase, which is essential to respiration by means of the activation of carbon dioxide transport at the cellular level. Without zinc, there is no carbonic anhydrase, ergo, poor carbon dioxide removal at the cellular level.[1–3]

In order to gain an index to normal body zinc levels, several methods have been used. Hair has been used as an indicator of total body zinc levels, but because of the wide variations that we have noted in a random population sample, we have found it to be a poor indicator of normal or abnormal zinc levels when sampled on a daily basis. We have utilized venous plasma zinc concentrations as an index of body zinc changes (normal and abnormal). Reproducible samples have been obtained from patients on a daily sampling schedule by following a simple protocol. A fasting venous whole blood sample (5 ml) is drawn shortly after the patient has awakened. This is immediately spun down and the plasma separated. Zinc analysis is accomplished by atomic absorption spectrophotometry. If the patient suffers no physiological insult, this result is reproducible from day to day.

We have noted that plasma zinc concentrations (venous) will vary, when sampled on an hourly basis, after a surgical procedure.[4, 5] This phenomenon has been ascribed to a possible role which zinc may play in wound healing. Zinc has many documented roles in metabolic enzymatic activity. Because of the increase in enzymatic activity when there is increased metabolic activity (as in exercise), it was felt that there would be a change in plasma zinc levels, also.

In order to demonstrate a rapid change in venous plasma zinc concentrations by means other than surgical wounding, we exercised several adult mongrel dogs on a treadmill. Venous whole blood samples were obtained by venipuncture in the foreleg and pH, PCO2 and PO2 were immediately determined. Immediately following the allocation of an aliquot for the aforementioned determinations, the remainder of the sample was centrifuged and zinc determinations were made on the decanted plasma.

Methods

Four adult mongrel dogs of from 15 to 20 kg body weight were exercised on a treadmill daily for one week. The dogs were walked at speeds to 12 miles per hour for approximately ten minutes. (This routine was cancelled for one dog who lacked the ability to walk a treadmill on all four feet.) Immediately before being placed on the treadmill, a venipuncture was made in a forepaw and approximately 6 to 8 ml of whole

Observation of four adult mongrel dogs exercised on a treadmill showed that there was a change in plasma zinc concentrations after the exercise period. This rapid change signifies the movement of protein in the blood and demonstrates the necessity of establishing a sampling protocol in patients in order to obtain the meaningful results necessary for an investigator to use the plasma zinc levels as an index of normal or abnormal body zinc levels. The authors are from the Department of Surgery, University of Missouri School of Medicine. Dr. DeWeese is Professor and Chairman of the Department; Dr. Henzel is Assistant Professor; Dr. Liehti is an Instructor; and Mr. Turner is a third year medical student.

TABLE 1

PLASMA pH, PCO2, PO2 VALUES AND PLASMA ZINC CONCENTRATION BEFORE AND AFTER EXERCISE

Treadmill Day	*Exercise Test*	*Plasma Zinc ug/100ml*	*Venous Whole Blood*		
			pH	*PCO2*	*PO2*
		Dog 1			
1	Before	80	7.42	36	21
	After	60	7.45	38	28
2	Before	86	7.52	28	36
	After	126	7.53	30	40
3	Before	84	7.52	35	24
	After	136	7.58	31	26
4	Before	54	7.43	32	30
	After	48	7.42	34	22
5	Before	72	7.51	34	29
	After	96	7.54	29	40
6	Before	84	7.48	39	33
	After	54	7.51	23	26
7	Before	54	7.34	41	27
	After	54	7.52	23	30
		Dog 2			
1	Before	86	7.46	33	32
	After	86	7.48	32	48
2	Before	96	7.46	34	28
	After	48	7.52	34	32
3	Before	84	7.46	36	32
	After	108	7.48	30	30
4	Before	108	7.51	38	29
	After	138	7.58	32	23
5	Before	52	7.57	39	30
	After	34	7.77	28	45
6	Before	90	7.48	25	30
	After	48	7.51	18	27
7	Before	86	7.46	38	26
	After	54	7.48	38	38
		Dog 3			
1	Before	84	7.42	36	31
	After	84	7.63	33	28
2	Before	66	7.46	36	34
	After	84	7.62	29	28
3	Before	48	7.61	38	36
	After	30	7.52	36	30
4	Before	48	7.46	35	31
	After	30	6.63	24	18
		Dog 4			
1	Before	90	7.45	35	36
	After	90	7.46	37	26
2	Before	54	7.44	38	18
	After	54	7.45	34	38
3	Before	96	7.51	34	29
	After	96	7.52	33	31

blood were withdrawn. Blood gas and pH determinations were immediately made on this sample (utilizing an aliquot of 1 ml) with an IL model 113 pH/Blood Gas Analyzer. The remainder of the sample was centrifuged in order to obtain a venous plasma sample for zinc analyses. The zinc analyses were accomplished by dilution techniques utilizing a Perkin-Elmer model 290 B atomic absorption spectrophotometer for the analysis. The sampling and analytical procedure was repeated immediately following the treadmill exercise period.

RESULTS AND DISCUSSION

Initially, we had hoped to exercise the animals to a point of oxygen deficit. Unfortunately, we were not able to accomplish that goal as the animals expressed a desire to fulfill a basic biological urge at one time or another during their sojourns on the treadmill. However, on reviewing the data in Table 1 (dogs # 1-4), several significant items became apparent. There is, in almost all observations made, a difference in the zinc concentration of the venous plasma. There is no direct correlation (or indirect) of plasma zinc levels and pH, PCO2 or PO2 levels noted in any of the animals observed. We cannot (at this time) account for many of the pH changes noted before and after exercise (dog # 3). The major item that we have learned from this study is that venous plasma zinc levels do change rapidly when a change is made in the activity of the dog.

It is of interest to note that dog # 4, who walked the treadmill in an upright position by having his forepaws supported, had no change in zinc concentrations in the venous plasma of the unexercised appendage nor did he manifest any great changes in the other parameters observed during his exercise periods. At the present time, observations are being made of patients and other volunteers who perform exercises and preliminary data shows a possible correlation (inverse) of venous blood pH and venous plasma zinc concentration.

SUMMARY

Four adult mongrel dogs were exercised on a treadmill at speeds up to 12 miles per hour for periods of about ten minutes. Venipunctures were made before and immediately after the treadmill exercise and pH, PCO2 and PO2 along with plasma zinc concentrations were determined. Though no correlations of the data could

(Continued on page 309)

C. H. FLORES-VEGA, M.D., J. A. NUETZEL, M.D. *and*
W. A. KNIGHT, JR., M.D., *St. Louis*

Thrombophlebitis: Incidence Using Standard Versus Buffered Intravenous Solutions

A Study

A report on the incidence of phlebitis in patients receiving standard (acid) or buffered (neutralized) solutions infused through an indwelling intravenous catheter. Although striking differences were not observed, fewer cases of phlebitis occurred with buffered than with standard solutions. The authors are from St. Mary's Hospital.

Hospitalized patients frequently receive intravenous infusions such as dextrose in water or saline or lactated Ringer's solution which have a pH in the range of 3.5 to 6.5. The acid pH of dextrose solutions is required to prevent caramelization or degradation during autoclaving and storage.[1, 2] A frequent complication of administering intravenous drugs or infusions is local thrombophlebitis. Several predisposing factors have been considered as the cause of infusion thrombophlebitis including duration of infusion, type and volume of infusate, trauma with needle or polyethylene intravenous catheters and local infection. Prophylactic measures such as adding heparin to intravenous solution,[3] attention to aseptic technique[4, 5] and avoiding excessive trauma at the time of venipuncture,[4] as well as using an antibiotic ointment,[4, 6] have been emphasized.

Recently Fonkalsrud *et al*[7] have reported that an acid solution is irritating to tissues and can induce localized thrombophlebitis. Our study was undertaken to compare the incidence of phlebitis in patients receiving standard (acid) or buffered (neutralized) solutions infused through an indwelling intravenous catheter.

Material and Method

Routinely in the Coronary Care and Intensive Care Units, an intravenous catheter is employed for micro drip of dextrose 5% in water with 1,000 units of aqueous sodium heparin added to each 500 ml of fluid to be infused. Other fluids, blood or certain drugs can be given as needed.

With the assistance of pharmacy personnel, a double blind study was initiated. Random cases in Coronary Care and Intensive Care Units were given standard or buffered fluids. Pharmacy personnel delivered coded bottles of fluid so that standard and buffered solutions could not be distinguished. The seals of all bottles were opened before leaving the pharmacy. Solutions with the same code number were continued in each case. If a different coded solution or standard fluid was inadvertently used, that subject was excluded from the series. Each set of bottles was renewed every 24 hours. A total of 150 patients of whom 75 received standard and 75 received buffered solutions are included in this report.

The insertion of the intravenous catheter usually was made by nurses from the Intravenous Therapy Team, although some were made by the nurse in charge of the unit or by the house officer on call. A standard aseptic technique was employed to prepare the area of venipuncture: (a) area was scrubbed with water-diluted antiseptic soap (Septisol®—Vestallab); (b) hair was shaved when necessary; (c) an antiseptic solution (Betadine® Solution—Purdue-Fredrick) was applied and partially removed with sterile gauze; (d) without sterile gloves but with clean hands and following package instructions, an intravenous catheter (Venocath®) was inserted and taped; and (e) antibiotic ointment (Neosporin® Ointment—Burroughs/Wellcome) was applied at the site of insertion and covered with a sterile gauze dressing and non-allergenic tape.

Each patient was examined every eight to 12 hours for evidence of phlebitis (tenderness, pain, erythema, inflammation or induration) at the site of venipuncture, along the length of the catheter and distal to it. If any sign of phlebitis was found, the catheter was removed.

The word "case(s)" instead of patient(s) will be used for reporting results since on several occasions the same patient was given another code number fluid in a non-affected vein selected by one of us (C.H.F.). All venipunctures were in the upper extremities.

When intravenous catheters were sent for culture, they were first removed with sterile technique, the tip (1 cm to 2 cm) cut off and placed in thioglycolate broth. They were observed every 24 hours for three days. If positive, subcultures were made on blood agar media and then identified.

The criteria of Fonkalsrud *et al*[1] were used for evaluation of phlebitis. In addition, we also classified the site of phlebitis (Table 1).

The infusates most frequently used in this study were dextrose 5% in water, dextrose 5% in lactated Ringer's injection and normal saline (isotonic sodium chloride injection). The administration of intravenous medications or special electrolyte solutions was held to a minimum while the patients were under study. When these were needed promptly, they were added to the infusates or, when feasible, were administered as separate injections at a different site.

TABLE 1

CLASSIFICATION OF PHLEBITIS (TWO CATEGORIES)

By degree of severity of phlebitis (Fonkalsrud):

0 None

1+ Mild discomfort, presence of erythema that subsided within hours after catheter was removed.

2+ Moderate and persistent discomfort, erythema and heat that lasted several hours after catheter was removed.

3+ Severe discomfort, erythematous streak, heat and persistence of symptoms for several days after catheter was removed.

By location of phlebitis (any degree of inflammation):

#1 At site of needle and catheter insertion.

#2 Along the length of catheter with cephalad extension.

#3 At the level of tip of catheter and/or cephalad extension.

The buffered solutions were prepared by adding one 20 ml vial of sodium bicarbonate 1% (2.4 mEq) additive solution to each liter of fluid. The following pH changes were achieved with a variation of ± 0.2 pH units:

Name of Solution	*Standard Listed pH*	*With Neut Adjusted pH*
Dextrose 5% Water	4.4	7.2
Dextrose 10% Water	4.2	7.0
Dextrose 20% Water	4.0	6.9
Dextrose 5% Saline	4.6	7.5
Dextrose 5% ¼ Saline	4.7	7.5
Dextrose 5% Ringer's	4.2	7.3
Ringer's Injection	5.4	7.3
Lactated Ringer's Injection	6.5	7.6
Alcohol 5% Dextrose 5% Water	4.5	7.3
Normal Saline (sodium chloride injection)	5.4	7.7

Intravenous solutions, intravenous catheters (Venocath), sodium bicarbonate 1% (2.4 mEq) additive solution (Neut), and pH values were supplied by Abbott Laboratories.

RESULTS

Of the total 150 cases, 62 developed phlebitis while receiving intravenous fluids (Table 2).

After three days of fluid administration, 29 cases of phlebitis had occurred on standard solutions compared with 22 cases on the buffered solutions (Table 3, Fig. 1). The incidences of

TABLE 2

SUMMARY OF RESULTS IN 150 CASES RECEIVING STANDARD OR BUFFERED SOLUTIONS (75 CASES EACH) IN INTRAVENOUS CATHETER

Day of Fluid Therapy	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*Total*
Standard solution (No. of Cases)									
Phlebitis	5	11	13	2	2	1	0	0	34
Without phlebitis	6	8	11	4	8	2	1	1	41
Total	11	19	24	6	10	3	1	1	75
Buffered solution (No. of Cases)									
Phlebitis	6	12	4	1	4	1	0	0	28
Without phlebitis	9	11	8	6	5	1	6	1	47
Total	15	23	12	7	9	2	6	1	75

TABLE 3

CUMULATIVE INCIDENCE OF PHLEBITIS ON A DAILY BASIS WITH STANDARD OR BUFFERED SOLUTIONS VIA INTRAVENOUS CATHETER

Day of Fluid Therapy	*Standard Solution*			*Buffered Solution*		
	NO. OF CASES*	PHLEBITIS NO.	PERCENT	NO. OF CASES*	PHLEBITIS NO.	PERCENT
1	75	5	6.7	75	6	8.0
2	69	16	23.2	65	18	27.7
3	61	29	47.6	55	22	40.0
4	50	31	62.0	47	23	48.9
5	46	33	71.7	41	27	65.9
6	38	34	89.5	36	28	77.8
Median days to phlebitis			3.2			4.1

* Includes all cases on fluid therapy minus the number without phlebitis for which therapy had been discontinued by the previous day.

phlebitis at three days, after adjusting for other cases which were discontinued, were 47.6% and 40.0% for the standard and buffered solutions, respectively.[3, 8]

It was determined that the median number of days (50th percentile) to onset of thrombophlebitis was 3.2 for cases on standard fluids and 4.1 for those on buffered solutions. This difference was not established to be a statistically significant one, even though such a difference might be considered quite meaningful from a clinical standpoint. A substantially reduced sample size existed by the end of the third day from which to evaluate a statistical difference since, by that time, 53 of 150 patients (35%) had discontinued therapy for reasons other than phlebitis.

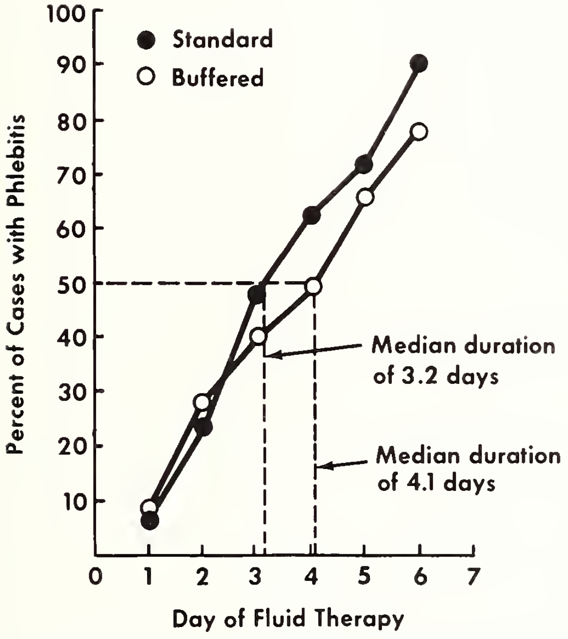

Fig. 1 Cumulative incidence of thrombophlebitis with standard or buffered solutions (from Table 3).

Of the 75 cases receiving standard (acid) solutions, a total of 34 cases developed phlebitis. Of these, seven cases had moderate (2+) and three cases had severe (3+) phlebitis (Table 4). Ten cases had phlebitis localized along the course of the catheter with cephalad extension, and 20 cases had phlebitis at the tip of the catheter or cephalad extension or both (Table 5). Of the 75 cases receiving buffered solutions, a total of 28 developed phlebitis. Of these, nine cases had moderate (2+) and two cases had severe (3+) phlebitis (Table 4). In seven cases, phlebitis was localized along the course of the catheter with cephalad extensions; in 16, phlebitis occurred at the tip of the catheter or cephalad extension or both (Table 5).

TABLE 4

NUMBER OF CASES WITH PHLEBITIS CLASSIFIED ACCORDING TO SEVERITY

	Severity of Phlebitis	*Day of Fluid Therapy* *1*	*2*	*3*	*4*	*5*	*6*	*Total*
Standard Solution	1+	2	8	10	1	2	1	24
	2+	2	2	2	1	0	0	7
	3+	1	1	1	0	0	0	3
Buffered Solution	1+	2	8	4	1	2	0	17
	2+	3	4	0	0	1	0	8
	3+	1	0	0	0	1	1	3

The incidence of phlebitis in the entire series of cases, irrespective of the pH of the fluid used, was 41%; however, a high percentage of this group had only minor discomfort or a 1+ phlebitis. Thus, the incidence of persistent discomfort (2+ phlebitis or greater) was only 14%. Of this group, ten cases had received standard solution and 11 cases buffered solution.

When categorized by location of phlebitis (Table 1), it was felt that cases of class #1 were not the result of the pH of the solution infused, whereas class #2 and class #3 cases were conidered as possibly the result of pH of solution. The incidence of phlebitis at locations #2 and #3 in relation to the total incidence was 30/34 (88.2%) for standard and 23/28 (82.1%) for buffered solutions.

TABLE 5

NUMBER OF CASES WITH PHLEBITIS CLASSIFIED ACCORDING TO LOCATION OF PHLEBITIS

	Location of Phlebitis	*Day of Fluid Therapy* 1	2	3	4	5	6	*Total*
Standard Solution	#1*	1	1	2				4
	#2†	1	5	3	1			10
	#3‡	3	5	8	1	2	1	20
All locations		5	11	13	2	2	1	34
Buffered Solution	#1*	1	4					5
	#2†	3	4					7
	#3‡	2	4	4	1	4	1	16
All locations		6	12	4	1	4	1	28
All locations both solutions		11	23	17	3	6	2	62

* Site of insertion.
† Along the course of the catheter with cephalad extension.
‡ At tip of catheter and/or cephalad extension.

The volume of fluids administered to the standard and buffered case groups was approximately equivalent (Table 6). For cases receiving up to 1,000 ml of standard solutions, the ratio of phlebitis to no phlebitis was 19:20. For the same volume of infusion of buffered solutions the ratio was 12:26. These data suggest that buffered solutions may well be better tolerated, but a larger series of cases would be needed to confirm this result.

In the entire study, 77% of the cases had heparin added to the IV solutions, and these were about equally divided between the standard and buffered groups. The practice of using heparin to delay thrombophlebitis with IV solutions may have reduced the level of phlebitis in this study for both standard and buffered fluids.

Fifty-nine cases had the tip of the catheter cultured and in 43 of these, there was visible evidence of phlebitis when the catheter was removed. Five positive cultures were reported, three of which were cases without evidence of phlebitis. The organisms identified in four cases were *Staphylococcus epidermidis* and in one case *Shigella-Escherichia intermedia* and enterococci were found (Table 7). One case originally admitted with a gram negative septicemia had received antibiotics and corticosteroids and had a negative blood culture at the time the catheter was reported as positive for *S. epidermidis*. None of the remaining four cases had systemic manifestations of infection.

TABLE 7

RESULTS OF CULTURES OF 59 INTRAVENOUS CATHETERS

Culture	*Cases With Phlebitis*	*Cases Without Phlebitis*
Negative	41	13
Positive	2*	3†

* One of these was positive for *Staphylococcus epidermidis* in a case originally admitted with and treated for gram negative septicemia; the other culture revealed *Shigella-Escherichia intermedia* and enterococci in a case without evidence of systemic infection.

† These three cases had positive cultures for *Staphylococcus epidermidis* without any manifestation of local or systemic infection.

COMMENTS

Although the incidence of phlebitis has been reported to be decreased when using a buffered solution,[1, 7, 9] we were unable to demonstrate its statistical significance, partly due to the rapid decline in sample size. Many predisposing factors are involved in the development of phlebitis.[1] In our study, we attempted to avoid some of them by using an aseptic technique before the venipuncture, by using a local antibiotic ointment[7, 8] after the catheter was in

TABLE 6

SUMMARY OF RESULTS ACCORDING TO VOLUME OF FLUIDS ADMINISTERED IN 150 CASES RECEIVING STANDARD OR BUFFERED SOLUTIONS (75 CASES EACH) VIA INTRAVENOUS CATHETER

Solutions	*Volume (ml)* 500 or less	501-1,000	1,001-2,000	2,001-3,000	3,001 or more	All Cases
Standard (No. of Cases)						
Phlebitis	8	11	8	0	7	34
No Phlebitis	8	10	14	4	5	41
Buffered (No. of Cases)						
Phlebitis	5	7	8	3	5	28
No Phlebitis	11	15	13	3	5	47

place and by adding aqueous heparin to the solutions.[3] In our series of cases, the time of onset of phlebitis was similar to that in the study by Anderson, who also used intravenous catheters.[10] Catheters in themselves can be a major factor inducing phlebitis, depending on size, site of insertion, length, early or delayed trauma to the vein or both. We also feel that some form of hypersensitivity reaction may play a role. Systemic manifestations of infection were not found in our study, and all five positive cultures were thought to represent contamination. Contrary to results of previous reports,[4, 5] we did not encounter serious infection as a clinical problem. Since a recent study has shown microscopic evidence of irritative effects of acid solutions in veins,[7] we believe the foreign body effect of the catheter may have obscured the magnitude of the reduction in incidence and severity of phlebitis which could be expected to result from neutralizing acid solutions for intravenous infusion.

Summary

An attempt was made to evaluate the incidence of postinfusion thrombophlebitis using acid and buffered solutions administered by intravenous catheter. The pH of the most frequently used dextrose solutions is maintained in a range of 3.5 to 6.5 to prevent caramelization and degradation during the sterilizing process and storage. Sodium bicarbonate 1% solution, 20 ml/liter, was used to neutralize the pH of standard solutions in a double blind study which was carried out in 150 cases. The incidence, severity and site of local phlebitis was assessed in 75 cases receiving standard solutions and 75 cases receiving buffered (neutralized) solutions.

The median number of days from infusion to phlebitis in this series of cases was 3.2 for acid solutions and 4.1 for buffered solutions.

Striking differences were not observed—fewer cases of phlebitis occurred with buffered than with standard (acid) solutions, although this difference was observed chiefly in cases classified as mild (transient) phlebitis. Some influence may be ascribed to the addition of heparin to most of the solutions used in this study and to the use of intravenous catheterization which may have masked the potential benefit of buffered over unbuffered acid solutions in this series of patients.

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Zinc Concentration in Venous Plasma

(Continued from page 304)

be made, it was noted that there was a change in the plasma zinc concentration after exercise. This change, because all body zinc is protein bound, signifies the movement of protein in the blood. The rapid change noted in the animals further demonstrates the necessity of establishing a protocol of sampling in order to obtain the meaningful results necessary so that one can utilize plasma zinc levels as an indice of normal or abnormal body zinc levels.

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Potassium Therapy and Gastrointestinal Lesions

CLINICAL RECOGNITION OF THE PROBLEM

THE FIRST GROUP of thiazide diuretics was introduced into clinical use in 1957. Since increased potassium excretion is one of the effects of thiazides, potassium supplementation became a common procedure in thiazide therapy. The first of several combinations of a thiazide with potassium chloride in a single tablet was introduced in 1959. Prior to 1963, only 170 cases of primary nonspecific ulceration of the small intestine had been reported in the literature.[1] The first report that serious gastrointestinal distress was associated with KCl-thiazide therapy appeared in 1961, but received little attention.[2] The problem became of intense interest during 1964 with reports which linked stenosing ulcers of the small bowel with potassium-thiazide therapy.[3, 4] Most of the patients involved had been treated with a thiazide, often supplemented with potassium. During 1964, two pharmaceutical companies in cooperation with the Food and Drug Administration analyzed records in 488 domestic and foreign hospitals. The results revealed that of 484 patients with the characteristic type of intestinal lesion, 275 (57%) had a history of administration of either potassium, a diuretic, or both.[5] Subsequent to these early reports linked small-bowel ulceration with potassium or diuretic therapy or both, reports of additional cases (Table 1), editorials and other comments have been published.[26–33]

TABLE 1

SMALL-BOWEL LESIONS REPORTED IN POTASSIUM THERAPY

Therapy	*Total Number of Cases*[a]	*References*
Enteric-Coated KCl plus Thiazide or KCl alone	411[b]	3-24
Non-Enteric Coated K-Salts plus Thiazide	3[c]	23-25

[a] The Food and Drug Administration has recently reviewed records of 122 cases.[52] Small-bowel lesions were found in 112 cases on thiazide-potassium enteric-coated tablets; six cases on diuretic plus enteric-coated potassium given separately; and four cases on oral diuretic without potassium.

[b] In 275 cases reported by Lawrason *et al*,[5] type of diuretic was not specified; therapy was potassium, a diuretic, or both.

[c] Includes two cases associated with potassium gluconate and one case associated with a potassium acetate-bicarbonate-citrate mixture.

INCIDENCE OF THE LESIONS

The incidence of potassium-induced lesions of the small bowel has been reported in several ways. Based on the total numbers of hospital records of all patients in 321 hospitals over 21 years, 211 out of 17,805,097 (1.2/100,000 patients) definitely or likely had lesions of the type associated with potassium.[30] On a different basis, 11 out of 473 patients (2.3%) who were on enteric-coated KCl administration were reported to have typical potassium-induced lesions.[3] A third way of describing incidence is from the survey of Lawrason *et al*.[5] Of a total of 484 patients with typical lesions, 275 (57%) had received diuretics or KCl. However, it has been pointed out that inaccuracies of record keeping would be responsible for a lower percentage of cause-effect relationships[10] and Boley *et al*[12] note in a very careful investigation of 125 patients not included in the mass survey of Lawrason *et al* that potassium ingestion was established definitely in 93% and probably in another 3%. Their conclusion was that the increase of circumferential small-bowel lesions must be attributed to enteric-coated potassium.

FOOD AND DRUG ADMINISTRATION ACTIONS

Information linking potassium administration to small-bowel lesions resulted in FDA regulations on warnings for potassium salt preparations intended for oral ingestion by man. The warnings are not required on preparations dissolved in an adequate quantity of liquid so that the concentration of potassium is below a 20 mg/ml limit, if it is a prescription item and if its labeling bears adequate information for use.[35] The FDA has recently proposed that all fixed combinations of diuretic and enteric-coated potassium be removed from the market. This action has been taken as a result of recommendations of NAS/NRC review panels that such combination drugs present more potential hazards than other types of potassium supplements which are available.[36]

KCl, NOT THIAZIDES OR ENTERIC COATS, RESPONSIBLE FOR LESIONS: ANIMAL STUDIES

The exhaustive retrospective studies of clinical records[5] strongly indicated that the nonspecific intestinal ulcers seen in man were probably caused by enteric-coated tablets containing KCl plus a thiazide diuretic. Initial questions were raised that the ulcerations could have been caused by any or all of the ingredients of these tablets. However, the incidence of the lesions was so small that statistical methods and large numbers of case reports had to be used to establish a cause-effect relationship. Only after animal experimentation was it shown that potassium chloride alone, and not the thiazide diuretic or the enteric coating of the tablet, was responsible for the injury to the intestinal tract.

An experimental model in dogs simulated an extreme situation in which a tablet would be entirely dissolved over a short length of intestine.[34] Tablets included enteric-coated placebos, enteric-coated KCl, various enteric-coated thiazide-potassium preparations and thiazides alone. The tablets were fixed within the ileum or distal jejunum so that dissolution and absorption of their contents occurred within a short segment of the intestine. No pathologic changes occurred from enteric-coated placebos or thiazides alone. With the KCl or the thiazide-KCl combinations, ulcerations occurred in varying degrees in both jejunum and ileum. The prerequisite for ulceration apparently was absorption of KCl in high concentration over a short length of bowel. There was a suggestion that higher doses of KCl caused more severe ulceration.

Enteric-coated tablets which contained placebo, thiazide, KCl and thiazide plus KCl were administered to rhesus monkeys.[37–39] Only KCl and KCl plus thiazide produced ulcerations; thiazide or enteric coats alone did not. The lesions were not consistently produced in the small intestine; sometimes the stomach, the cecum or the colon were affected. It appeared that ulcerations usually occurred where the greatest amount of potassium chloride was released from the tablet. It became apparent that tablets with short disintegration times produced lesions in the stomach or upper intestine, while tablets with long disintegration times produced ulcerations in the lower intestinal tract. Liquid preparations containing approximately 13.5 mEq potassium per 5 ml (equivalent to 1,000 mg of KCl) were chiefly irritating to the stomach. Lesions were produced within five days by 1,000 or 250 mg KCl in enteric-coated tablets twice daily. However, the 250 mg dosage caused milder lesions which could not be predictably reproduced, while tablets of 100 mg were without effect. Tablet dimensions were not a factor in production of lesions.

When the upper ileum of dogs was partially obstructed with Teflon bands, acute mucosal ulceration resulted from administration of KCl alone or in combination with thiazides. Thiazides alone did not produce ulceration.[40]

The author presents a concise review of the problem of potassium replacement during thiazide therapy and discusses the various dosage forms of potassium in relation to the problem of complicating intestinal lesions. He recommends a method of administration which minimizes the risk. This paper by Dr. Emerson of the Mead Johnson Research Center was offered for publication in MISSOURI MEDICINE by *The Journal of the Indiana State Medical Association.*

CLINICAL ASPECTS AND GROSS PATHOLOGY

Lesions have appeared up to two years after discontinuing potassium administration;[19] as few as two tablets have been implicated;[7] age of patients has been as low as two years;[11] and lesions may be reversible in some cases.[6] Recurrent, usually postprandial, crampy abdominal pain is the most frequent symptom; this is often associated with nausea, vomiting and intermittent distention. In severe cases, acute surgical abdomen is present. Fever, anorexia and malaise are usually absent; laboratory findings are nonspecific except for mild eosinophilia in some cases. Radiologic examination is of little assistance in establishing a diagnosis other than if the obstruction is complete or there is a perforation. Gastrointestinal series and small-bowel follow-through may suggest a malabsorption syndrome with coarse mucosal folds and dilated loops of small intestine, but usually the proximal jejunum and terminal ileum are normal. A careful review of the case history as to previous potassium therapy may be necessary to establish diagnosis.

The ulcers are characteristically circumferential, sharply delimited and directly over the zone of cicatricial narrowing. They are usually solitary, sometimes double, rarely multiple and are most commonly found in the lower ileum, but also in the distal jejunum. The most important distinguishing feature of the stenotic phase is a band-like encirclement of the lumen by the lesion which varies in size from several millimeters to several centimeters. In this phase, the segment of bowel proximal to the lesion is dilated approximately one and one half to two times and has a thickened muscularis; the distal segment is normal. The surrounding mucosa and muscularis may show varying degrees of edema, hypertrophy and hemorrhagic infiltration. The histologic picture depends upon the severity and duration of the lesions. Detailed descriptions of clinical manifestations, gross and histologic pathology and therapy are given elsewhere.[41, 42]

Pathogenesis of the Lesions: Postulated Vascular Insufficiency

There are two main concepts concerning the mechanism by which potassium causes the lesions. The first is that potassium has a directly injurious effect on the mucosa.[3, 23, 43] For example, potassium chloride solution injected into the intestine in concentrations similar to those obtained from the release of enteric-coated tablets containing potassium results in severe tonic contraction of the bowel, and an uncoated KCl tablet placed directly on the intestinal mucosa causes superficial necrosis by the time it is completely dissolved.[23] However, several types of evidence lend greater support to the second concept that the lesions are caused by an insufficiency of blood to the affected part of the intestine.

Briefly, Boley and coworkers postulate that the precipitating factor is the rapid release of potassium chloride and its absorption over a short segment of intestine.[22, 34, 41, 42] The high concentration causes spasm or paralysis of the intramural and mesenteric vessels, predominantly veins, with slowing of blood flow and subsequent infarction of varying severity. Circumferential ulceration, either superficial or deep, or overt intestinal necrosis follows. Complete and rapid clinical recovery may follow the mildest degrees of injury. With greater damage, fibrosis with increasing stenosis produces progressive intestinal obstruction. The most severe injuries produce perforation or intraluminal hemorrhage.

Evidence in support of the hypothesis that potassium causes vascular insufficiency is from several sources:

(1) Mesenteric vascular insufficiency has been implicated as a cause of segmental ulceration and stenosis of the small bowel in conditions other than those caused by potassium.[22, 44]

(2) Histologic examination of tissue taken from KCl-caused lesions in man and animals indicates striking changes in mesenteric vessels, particularly arteries and veins. Sections show the lumens of vessels almost completely blocked with a thickening of surrounding tissue.[12, 22, 41] Other studies have not revealed mesenteric vascular changes.[3, 7, 23, 45] Allen *et al*[41] recognize this disparity in findings and discuss difficulties in examination of mesenteric tissue. They note that they have had the opportunity to study adequate sections of mesentery in man and animals.

(3) Animal studies tend to be consistent with the hypothesis that KCl may result in a local vascular insufficiency. Schwartz *et al*[22] occluded the distal veins and arteries supplying the small intestine of dogs by injection of microspheres into the small branches of the superior mesenteric vessels. They were able to reproduce the typical ulceration with stenosis and dilatation complex found in patients with intestinal ischemia. They postulated that the role of potassium in the formation of similar lesions was also primarily vascular in nature. Watson & Mark[24] ligated arteries and veins which supplied segments of the small intestine of dogs. When 5 cm to 7.5 cm of the small intestine was rendered ischemic, changes occurred in the bowel wall which were grossly and histologically similar to those caused by the ingestion of enteric-coated KCl. If shorter segments were rendered ischemic, collateral blood supply prevented significant changes in the bowel; if longer segments were treated, hemorrhagic infarction occurred. These observations lent further support to the contentions that vascular lesions could cause changes of this type in the bowel wall and mucosa, and that it was not necessary to postulate direct injurious effects of potassium on the mucosa to explain the pathologic picture.

Myers *et al*[53, 54] have recently suggested that the etiologic factor in stenosing ulceration is not a specific toxicity of the potassium ion, but involves the effect of local salt concentration. They observed that hypertonic solutions of both NaCl and KCl produced gross and microscopic injury similar to that seen in the early stages of primary nonspecific small-bowel ulceration.

Is a Preexisting Vascular Deficiency Significant in Potassium-Induced Small Bowel Lesions?

A high percentage of small intestinal lesions associated with potassium chloride administration are found in patients with some form of cardiovascular disease, although lesions have also occurred in a number of patients without such disease. A condition of arteriosclerosis, for example, might result in a critical reduction of blood flow to the small bowel and set the stage for focal infarction. Mansfield *et al*[14] found that potassium chloride tablets introduced into the distal part of the ileum of the dog produced acute inflammatory changes and occasional ulceration of the affected bowel. When partial interruption of splanchnic blood flow was accomplished by reducing the pressure in the superior mesenteric and celiac arteries, the magnitude of these drug-induced small bowel changes was increased. The authors conclude that their observations support the clinical observations which indicate that enteric-coated potassium chloride tablets cause local inflammation or ulceration of the small bowel, and that a reduction of the local blood supply associated with vascular occlusive disease may predispose the patient to this complication. However, it must be noted that the greater incidence of lesions in cardiovascular patients may simply reflect a larger number of such patients on diuretic (and KCl) therapy. Furthermore, small intestinal ulcerations have been attributed to several causes other than vascular insufficiency or KCl administration.[20, 21, 44, 46]

Studies on Safer Dosage Forms of Potassium

(1) *Organic vs chloride salts of potassium.* Boley *et al*[47] compared the effects of the chloride versus the citrate and the gluconate salts of potassium using techniques similar to their previous study.[34] Only minimal superficial changes were found at the intestinal sites of potassium citrate or gluconate; however, in five of six dogs in which KCl was implanted, a gross circumferential infarction was present at the site of the salt, while all other sites of gluconate or citrate implantation were normal. These results suggest the relative safety of potassium citrate or gluconate as compared to potassium chloride and confirm clinical observations (Table 1) that the organic salts of potassium are safer than KCl. Baker *et al*[3] reported 11 cases of small bowel lesions out of an estimated 473 patients who received hydrochlorothiazide plus potassium chloride in enteric-coated preparations, but no lesions in an estimated 331 patients who received hydrochlorothiazide plus nonenteric potassium preparations, among them 31 patients who received potassium as the acetate, bicarbonate and citrate. Boley *et al*[47] speculate that since the underlying etiology is the rapid absorption of high concentrations of potassium over a short length of intestine, the various potassium slats may differ in their effect because of different rates of absorption. All of the potassium salts ionize almost immediately and completely, but the absorption of a cation across the intestinal wall is at least partially controlled by the rate of absorption of the respective anion. Absorption rates of ions such as gluconate (large and monovalent) or citrate (large and trivalent) are slower than that of the smaller monovalent chloride ion. The slower absorption of these organic anions would help prevent the rapid release of potassium over a short segment of intestine and diminish the concentration of potassium in the intestinal wall veins at any one time.

(2) *Enteric-coated vs slow-release forms of KCl.* Olive baboons were given two preparations of thiazide diuretics containing KCl: one consisted of an outer coat of hydrochlorothiazide 25 mg surrounding an enteric-coated core containing 572 mg KCl; the second consisted of cyclopenthiazide 0.25 mg in the outer shell with a wax slow-release core containing 600 mg KCl.[45] The enteric-coated KCl produced lesions similar to those reported in man; the slow release form had no deleterious effects. The author suggested that the slow-release form was safer. Whether or not slow-release forms are safer is open to question since Diener *et al*[37, 38] indicated that gradual release tablets are more apt to release sufficient KCl in the stomach to cause gastric irritation. Furthermore, studies on release rates of various KCl preparations[48] indicate that slow release forms would tend to place the KCl in the stomach, while enteric-coated forms would tend to release their contents in the small intestine. In fact, the main reason for the development of enteric-coated tablets is to prevent release of certain types of medicines in the stomach to avoid gastric irritation and to provide rapid release in the small intestine,[49, 50] although there was no evidence of sudden release and absorption of one type of enteric-coated KCl tablets.[51]

It appears that the relative safety of potassium therapy is in terms of adequate dilution such as provided by several liquid or effervescent dosage forms, particularly of organic salts of potassium.

Summary

Small-bowel lesions associated with enteric-coated KCl-thiazide preparations are caused by the KCl component of the tablets. The lesions are characteristically nonspecific, circumferential and consist of stenosis with or without ulceration. The reported incidence is approximately 1/100,000 total hospital patients; probably over 90% of patients with typical lesions have ingested potassium. Current evidence supports the primary vascular origin of the lesions and suggests that chronic vascular insufficiency predisposes the small bowel to injury by KCl. The safest dosage forms of potassium are those which have been diluted in an adequate amount of water, particularly those which contain organic potassium salts.

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"Inside the Coronary Care Unit," a new booklet to guide the patient and his family, has been published by the American Heart Association for distribution to hospitals and physicians' offices. Copies of the booklet may be obtained through the Missouri Heart Association, P.O. Box Q, Columbia, Mo. 65201.

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The Decade of the 60's—Looking Forward to the 70's

A comprehensive review of the important and significant progress achieved during the past decade in the developing programs of the School of Nursing. Long range plans include continued progress in the 1970's, but are dependent upon additional space for teaching. They will involve increasing enrollment in the baccalaureate program, expanding the programs of graduate education and providing services aimed toward improved nursing care for the citizens of Missouri. Miss Potter is Associate Dean, School of Medicine, in Charge of the School of Nursing, and Professor of Nursing.

In the period since the last report of the School of Nursing at the University of Missouri-Columbia, many changes have occurred. These include changes in the baccalaureate curriculum, curtailment of the number of students admitted each year because of space limitations, expanded offerings of continuing education for nurses and initiation of graduate programs. Plans for the 1970's are dependent on obtaining the necessary funds to start building a proposed new Outpatient Clinic-School of Nursing building. When completed, this will provide space to increase the enrollment in the baccalaureate program, expand the programs of graduate education and provide other services aimed toward improved nursing care for the citizens of the state.

The Decade of the 60's
The Baccalaureate Program

Current Curriculum. The baccalaureate curriculum was revised for students entering in 1965. In essence, this is the curriculum offered today. For the student who enters upon graduation from high school, it usually requires nine semesters of study which include 68 semester hours of general courses and 56 semester hours of class and practice in the nursing major. The student begins the clinical nursing courses after completion of background course work on biological, physical, social sciences and other courses. The student who enters after having completed a diploma or associate degree program in nursing may challenge for credit in selected nursing and other courses, as well as qualify for transfer credit for applicable college courses completed previously.

Enrollment. Enrollment in the School increased from 208 in 1959 to 307 in 1962. At that time, because of lack of classrooms and faculty office space, it became necessary to limit the number of nursing students admitted each year. The fall, 1969 total enrollment was 319. Even with the number admitted each year remaining relatively stable, the number graduating each year has been increasing, ranging from 33 in 1961 to 58 in 1969.

The number of well qualified applicants has continued to increase for several years. Because of space limitations, however, it has been impossible to admit all applicants who rank in the highest one fourth of their high school graduating classes. In 1969, there were 34 such applicants who could not be accepted, yet all of them could have been expected to do well if there had been room for them.

Follow-Up Study of Graduates. In 1969, a follow-up study was made of graduates of the baccalaureate program since 1951. The Bachelor of Science in Nursing degree was awarded to 600 graduates between June, 1951 and January, 1969. Of the 437 who responded to the questionnaire, 63% reported current employment with more than half of these (162) reporting residence in Missouri. These graduates are a relatively young (median age, 28.7 years), predominantly female group. Three hundred and sixty (82%) are married and 268 reported having one child or more. Only eight of the respondents reported no period of employment since graduation, while 246 reported continuous employment since graduation. It appears that University of Missouri graduates are contributing appreciably to nursing in Missouri as well as in other states. Types of current employment show the gamut of employment opportunities, including 66 staff nurses, 36 instructors, 37 head nurses, 12 supervisors and 18 directors of nursing. With the increasing trend for married women to return to work after raising their children, the extent of services from this group should increase in the future.

Expanded Programs of Continuing Education

The rapidly developing knowledge in the health fields, the changes of responsibility due to job changes and the return of graduates to nursing after a period of inactivity all intensify the need for programs of continuing education in nursing. As a part of University programs of Continuing Education for the Health Professions, the School of Nursing has increased markedly its types of programs and the number of offerings in the past few years. During 1968-1969, 3,027 nurses were reached by telephone lectures transmitted from the Medical Center to 18 locations in the state; the School of Nursing Speakers' Bureau was called on 15 times to lecture to a total audience of 430; and more than 800 professional nurses attended workshops and conferences on campus. Offerings during the current year have been increased with a corresponding increase in attendance being experienced.

Graduate Education in Nursing

Nationwide, the most critical shortage of nurses is in the group prepared by graduate education for leadership positions. Missouri is no exception in this respect. In 1967, a report of a survey by the Division of Health indicated 1,353 unfilled budgeted positions for registered nurses in Missouri's hospitals, nursing homes, public health agencies and schools for practical and professional nurses. The level of responsibility is not specified for all of the positions. However, the information given would indicate that 100 to 150 of these unfilled positions should be filled by nurses with graduate education in nursing.

The University of Missouri-Columbia admitted its first students to a graduate program in Medical-Surgical Nursing in 1968 and to graduate programs in Psychiatric Nursing of Adults and of Children in 1969. Currently, the enrollment is seven first-year students and three second-year students. The program in Medical-Surgical Nursing is offered on the Columbia Campus; those in Psychiatric Nursing use facilities at St. Louis State Hospital.

Since only one other University in Missouri offers graduate education in nursing, the need for increased enrollment in the current programs and for adding areas of specialization is obvious. However, space now available for teaching nursing classes does not allow for this much needed development.

LOOKING FORWARD TO THE 70's

The progress of the School of Nursing in the 1970's is directly dependent upon additional space for teaching. This, in turn, is dependent upon state and federal financial resources for the University's request for a new Outpatient Clinic-School of Nursing building.

Facilities for Instruction in Nursing. When the Medical Center in Columbia opened in 1956, the School of Nursing was allocated approximately 3,000 net square feet of space for classrooms and offices. This was inadequate in 1956 and no space has been added since that time. In an article written for MISSOURI MEDICINE in 1961, the following statement appears: "Currently, the space allocated to faculty offices is inadequate for the most productive performance with the present number of faculty members. Expansion of enrollment and programs to the maximum possible with present clinical facilities will require additional office and other space for teaching and research."[1]

Clinical facilities have increased since 1961 with the opening of the Mid-Missouri Mental Health Center and will increase again when the Veterans Administration Hospital, adjacent to the Medical Center, opens in 1971. These changes increase the potential for expansion of enrollment and programs of the School of Nursing. Classroom and other teaching space and faculty offices have remained the same, except for becoming increasingly crowded. The necessity to refuse admission to many very capable applicants for the baccalaureate program and the delay in initiating graduate programs are two of the serious consequences of this lack of space.

During 1967, the faculty of the School of Nursing, along with all divisions of the University, devoted extensive study to the development of long range plans. Taken into consideration were the needs of the state for nurses, the demands from citizens for education in the field and the role of the University of Missouri-Columbia School of Nursing in relation to these. Although by no means meeting all of the identifiable needs of the state for nurses or the demands for this type of education, feasible goals decided on by the faculty were (1) increased enrollment in the baccalaureate program to the expectation of annual graduation of 100 as contrasted to 50 to 60 currently; (2) expansion of areas of specialization of graduate education programs with an anticipated 25-30 students completing the requirements for the degree, Master of Science in Nursing, annually; (3) additions to the programs of continuing education; (4) expansion of research efforts to improve nursing care; and (5) provision of consultation and other services to schools of nursing and nursing service agencies throughout the state.

Present and planned clinical facilities are adequate to accomplish these goals. The critical need is for classroom, office and other teaching space. Requests have gone to the State Legislature for the past two years and will be going again this year for an Outpatient Clinic-School of Nursing building. Applications to the appropriate federal agencies for matching funds have been approved. This proposed new building includes eight times the space currently allocated to the School—26,000 net square feet as contrasted to the current approximately 3,000. Included are laboratory, class and conference rooms, small individual offices for faculty members, locker room space, lounge and other facilities for students. The new building is to be interconnected with the present University Hospital and Medical Sciences Building. Offices for School of Nursing faculty members teaching in a clinical area will be located on the floor of the new building which interconnects with the inpatient hospital services, the clinic facilities and the departmental offices of the School of Medicine faculty members. We believe these facilities will provide the space to reach the goals set in the current long range plans and will offer a unique teaching and learning setting.

The federal share of the cost for the School of Nursing facility was 56% at the time the application was approved. The rise in construction costs since that time will need to be borne by the state. However, if state funds are appropriated this year, federal dollars approved represent slightly more than half of the total.

The fate of the University's request for funds for the Outpatient Clinic-School of Nursing buildings, as well as the fate of requests for other capital improvements for the University and all state agencies, are directly related to the amount of state tax dollars available for allocation to construction of new buildings.

Summary

Important and significant progress has been achieved during the decade of the 1960's in the developing programs of the School of Nursing. Although severely handicapped by inadequate space, annual graduations from the baccalaureate program have nearly doubled from low of 33 to a high of 58; master's level education has been initiated in three areas of specialization in nursing; and continuing education programs for the practicing nurse have been expanded. Graduates of the school are contributing significantly to nursing in Missouri; more than half of those reporting that they are currently employed listed Missouri as their state of residence.

Long range plans include continued progress in these areas. For the baccalaureate program, the goal is to reach approximately 100 graduates per year; for the master's program, it is planned to add areas of specialization as well as enrollment with the expectation that 25 to 30 students will graduate annually; and in the area of services to the state, plans call for additional efforts in research, consultation and programs of continuing education for nurses.

These long range plans can only be accomplished if the citizens of the state provide the financial support for personnel and the funds for construction of the much needed new building.

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Reprints: Ruby Potter, R.N., Ed.D.
Associate Dean
University of Missouri
School of Nursing
Columbia, Mo. 65201

The Doctor

One of the doctor's most important roles is in education.

For his patients, the physician provides the facts, supplies the rationale, triggers the action for life-saving health practices. To his students, he passes on his knowledge and the benefits of his clinical experience. With his colleagues, he shares new information and concepts.

Assisting the doctor in his teaching role is a major function of our professional education program. Through medical conferences, films, exhibits, pamphlets, monographs and other publications, we provide him with the most important and current information on cancer.

If, as Henry Brooks Adams speculated, "A teacher affects eternity; he can never tell where his influence stops", the outlook is optimistic.

doc'tor (dok'ter), *n.* (ME. *doctour,* fr. OF. *doctour,* fr.L. *doctor* teacher, fr. *docere* to teach.) 1. A teacher; one skilled in a profession, or branch of knowledge; a learned man.

American Cancer Society

President's Message

To all of you who read this page, may I extend greetings. From you, I expect condolences.

Dr. McGraw said in his presidential address, "Changes are frequently upon us before we are ready for them." That certainly is the case in this instance. I cannot aspire to match the informative and timely articles your Immediate Past-President has given you, but perhaps I may point out some items that are worthy of your consideration as the year rolls on.

Joseph L. Fisher, M.D.

This Is the Year of the Voter! What are you planning to do to help your candidate win? *A Candidate Support Committee* (CSC) is a good way to start to elect your conservative candidate. Medicine's public affairs movement hinges on effective candidate support. We can provide this through a CSC composed largely of physicians, their wives and close friends. By its very nature, a CSC is a temporary organization. However, it usually evolves from and is closely related to a permanent PAC organization and conforms to certain basic principles.

Every campaign is different, so every CSC must be flexible, governed by common sense and tailored to the needs of each campaign.

The PAC structure is bipartisan, but the CSC should support the better candidate, regardless of his party, to promote better government. Physicians must recognize that the candidates' views are more important than party labels. PAC members should be prepared to join CSC regardless of their own or any candidate's party affiliation if they are convinced CSC is backing the better man.

The chairman of your CSC should be an able executive who is not militantly identified with either party. He must be a key figure—the sort of man any candidate himself might have chosen to head his volunteer citizens committee. He should be able to lead, supervise, delegate, follow through and get the job done. The chairman appoints a small executive committee of about five people, one of whom should be a physician's wife who can serve as treasurer and secretary. A small group can react more quickly to campaign emergencies and presents fewer communication problems. It is essential that the physician members, as well as the selected physician's wife, be respected and well regarded by the medical community. They also must be knowledgeable, realistic, dedicated, hard-working people who will accept leadership roles and be discreet in their handling of inside campaign information.

Make CSC membership as large as possible in order to raise more money and become more effective. One dollar given early is sometimes worth two dollars contributed later. Raise dollars by the "eyeball-to-eyeball" method when possible. However, if you resort to mail, these do's and don'ts apply:

1. Don't send a letter to a potentially-good contributor unless you are willing to wind up with $10.00 instead of $100.
2. Your letter should not talk about your candidate's opponent.
3. Don't use third class mail. It will be thrown away unopened more often than not. It is best to stamp the envelope "personal."
4. Use home addresses rather than office addresses, if possible.
5. Be constructive. Talk about a candidate's qualifications, his record of service,

his high character, etc.

6. If the CSC includes other persons of the healing arts, let the veterinarians solicit the veterinarians, the dentists solicit the dentists, etc.
7. Clear your letter with the candidates' campaign managers.
8. Take it for granted that your letter will fall into the hands of your opposition. Couch it in temperate terms and base its appeal on reason rather than emotion.

Personal solicitation can be organized at the hospital staff level or on the basis of geography.

HERE ARE SIX THINGS THE BUSIEST PHYSICIAN CAN DO:

1. Raise funds. This is not an elective. It is required in the curriculum of candidate support.
2. Help the candidates get exposure before key community groups, such as medical society meetings, hospital staffs, service clubs, social organizations, etc.
3. Write letters on an original basis.
4. Distribute literature in the outer office, the consultation room or person-to-person when an opportunity presents itself.
5. Distribute and display bumper stickers and lawn signs. Wear a button. None of these demand a physician's time.
6. Ask your patient, while you are visiting with him, "Who will you vote for in the coming election?" If he is firmly committed, forget it! If his answer is equivocal, one or two good reasons why he should vote for the candidate you are backing may win a vote or two. Most patients value their physician's opinion. It only takes a minute from your busy schedule.

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Woman's Auxiliary

Medicare, Medicaid, peer review, utilization—these are areas of concern, Doctor, in which we, your wives, can do little to help you beyond lending a sympathetic ear. But when it comes to drug abuse, health careers, home health care and many other aspects of community health, we can lend a very strong hand of support. The Auxiliary, working closely with all national, state and local medical groups, has approved programs in most areas of health and is ready to serve. There is so much to do!

In Missouri, however, we have a disturbing situation. Although there are more than 4,000 members of the Missouri State Medical Association, only 1,775 of your wives are members of the Auxiliary. I must ask, "Why?" (I happen to know the rest of you aren't ALL bachelors!)

Let's test your A.Q. (Auxiliary Quotient):

Mrs. William M. Walker
President

> Is your wife a member and is she active in her membership? Does she have your encouragement?
>
> If there's no organized county auxiliary where you practice, is she a member-at-large? (Only 15 of you can answer yes to this question!)
>
> Does your wife know of your special interests and concern about your community?
>
> Do you encourage her to participate in other areas of interest to medicine?
>
> Do you know the purpose of the Auxiliary?

We exist primarily to help you in your goal to improve the health and welfare of the communities in which we live. Your choice of a life in medicine was also our choice, for better or for worse. Let's work together to make it a choice for the better. Each of us enjoys the satisfaction of accomplishment, and we can accomplish much more if we have your active support.

Our Auxiliary officers and committee chairmen are enthusiastic and ready to help in any way we can—from organizing new auxiliaries to implementing new programs. I will try to keep you informed about our activities through this column. We will be helping your wife through personal visits to her county auxiliary, workshops, conferences, *Missouri Doctor's Wife*, *M.D.'s Wife* and letters.

I'm looking forward to meeting many of your wives as new members. I hope they will tell me, "**My husband encouraged me to join and work in the Auxiliary—and I'm so glad I followed his advice!**"

EDITORIALS

RIGHTS AND PRIVILEGES

I'm sure the "turned on " generation will call me an "old codger," "not with it," "square" and other musical word concoctions. Really, I'm one of the "middle" people, not lazy enough to be supported by the government, not rich enough to avoid taxes.

Our group or generation must be very special though. By some, as yet unknown, means we have transferred through the genes and chromosomes our accumulated knowledge and wisdom. Such transfer being so complete that our offspring are able to analyze our mistakes and then prescribe their remedies with self-proclaimed infallibility.

These youngsters, without experience or background and still in the process of formal education, now tell us how it should be done. This is not too dissimilar to one of my technicians telling me how to run the radiology department. The only difference is that the student "expects" to get away with it. How professional educators can permit such mockery of their own knowledge, experience and ability is beyond my comprehension.

All seem to have lost sight of the fact that students are at colleges and universities as a privilege. They are guests of all society, the graduates who have demonstrated through their own example the worth of the institution, the alumni who have contributed hard earned cash to support the private school, and the tax payer who supports all public schools.

Superintendents, deans and chancellors are charged with administering and directing the educational activities just as general managers, chairmen of boards and presidents of corporations are charged with operating their respective business. The managers of business are responsible to the shareholders.

When disruption of educational complexes is permitted, then my rights as a stockholder in society are being violated and the administration is lax in its obligation to me. The student is not in school simply by right. He is there by privilege. When those privileges are ignored then he forfeits them.

Because an individual IS, it does not follow privileges become rights, that ignorance can be labelled intelligence, that laziness is called industry, that the unkempt and dirty become the normal.

Education is no different from any other aspect of life. It is not a commodity to be doled out. It must be desired, sought after, worked for and then used.

I am truly sorry so many educators are so lost in their own protected environment that they seem to have forgotten their purpose and are unsure where their obligations rest.

In a recent editorial of a national magazine, it was advocated that some changes are in order for our colleges and universities. The summary seemed to imply that there is a need for more open discussion between students and educators. Unfortunately, effective discussion must be based on facts and most of the student dissenters seem to not want to spend time collecting facts. (Also, to carry on such discussion at its indicated volume would require a tripling in the number of professors. The public, as per our current Kansas City school frustrations, doesn't want to pay the tab!)

Perhaps I oversimplify. But I know that I and many others who are shareholders in society feel the answer should be, "This is the way it is. If you do not like it, there is the door. **Go!** When you have acquired the knowledge and ability to take my position, then, and only then, have you earned the right to change the order."

There are a few who have said this. I commend them. They have no problems. Those who are weak shall always have problems.

EDWARD H. STRATEMEIER, M.D.
The Greater Kansas City Medical Bulletin

SO YOU WANT TO BE AN AUTHOR

It has been said that everybody over the age of 30 has a book inside and the only reason they don't write it is that they can't.

We agree with the second half of that statement. Most people past the age of 30 can't write. They can't write because writing is a slow laborious business conducted along a path beset with snares and pitfalls, and they won't do the research needed to produce publishable copy.

Would-be authors destroy their chance of publication when they confuse a revolver with a pistol or gauge with a caliber. They drive an editor out of his mind with expressions like these, "I would like to thank you," "150,000 Americans die each year," "This suppository is to be used nightly for 12 days." They put the seal of death on a manuscript with "Frame of Reference," "To structure a plan for," "At that point in time." They commit writers' suicide with the misuse of "Should," "Cryptic," "Tedious," "Plaid," "Criteria," "American flag," "Jewish Rabbi," "Methodology" and "Optimal."

The list of mistakes amateurs make could go on and on and on, but the few mentioned above should set some would-be authors back at their desks with a good dictionary and a review of how to reduce a 100-word paragraph to a 10-word telegram without misleading or confusing the receiver.

Authorship is more than applying the seat of the pants to the seat of a chair and allowing nature to take her course. Authorship has to have a long period of education balanced by a longer period of apprenticeship before it produces the beautiful flower known as a piece of published by-line copy.

Make no mistake about your future in the field of writing. For every piece of copy that appears, there are probably a hundred that have been submitted and rejected—a thousand that have been dreamed about and a million that are yet to be put on paper in a vain effort to capture an editor's attention and win his approval.

St. Louis County Medical Bulletin

Missouri Pediatricians to Hold Spring Meeting on May 8-9

The Missouri Chapter of the American Academy of Pediatrics will hold its spring meeting on May 8-9 at The Lodge of the Four Seasons at the Lake of the Ozarks.

The meeting will open with a reception and dinner on May 8. A business meeting on the morning of May 9 will be followed by committee meetings and reports from the various committees to the membership-at-large. Another reception and dinner will be held in the evening.

Officers for the Missouri Chapter are Richard D. Blim, M.D., Kansas City, Chairman; Francis X. Lieb, M.D., St. Louis, Vice-Chairman; and Don S. Overend, M.D., Springfield, Secretary-Treasurer.

All pediatricians in Missouri are urged to attend this meeting.

Continuing Education Coming Events

May 11-12	**Symposium—New Concepts in Cardiac Arrhythmias** University of Kansas Medical Center Kansas City, Kan. 66103
May 12-14	**Seminar—The Changing Spectrum of Medical Care** Menorah Medical Center, Kansas City 64110
May 13-14	**Spring Clinical Conference—Selected Topics in Internal Medicine** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
May 15	**Communication Disorders** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
May 15	**Eighth Annual Pediatric Seminar—Adolescence** Baptist Memorial Hospital, Kansas City 64131
May 28	**Education Day Seminar** Menorah Medical Center, Kansas City 64110
June 9-11	**Lesions Related to the Spinal Cord: A Radiographic Pathological Correlation** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201
June 9-11	**Seminar: Management of Sensory Disorders** Menorah Medical Center, Kansas City 64110
June 24-25	**Diabetes** Continuing Education, M.U. School of Medicine Medical Center, Columbia 65201

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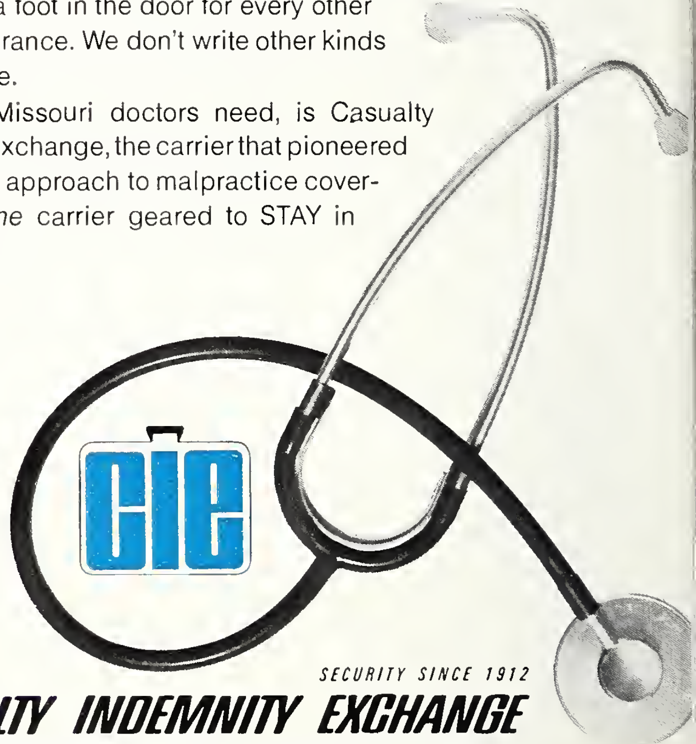

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County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

Buchanan County Medical Society

Thirty-eight physicians attended the March 4 meeting of the Buchanan Medical Society which followed a dinner at the St. Joseph Country Club.

Dr. Ernest E. Weinand introduced the scientific speaker, Dr. Martin J. Fischer, surgeon and thoracic surgeon, who presented an illustrated paper on "Cancer of the Esophagus."

Dr. Owen W. D. Craig presided at the meeting and business session.

E. F. Butler, M.D., *Secretary*

Grand River Medical Society

Twenty-five members, wives and guests attended the regular monthly meeting of the Society at the Strand Hotel in Chillicothe on March 12.

The members of the Auxiliary remained for the discussion which followed the dinner. E. Grey Dimond, M.D., Kansas City, conducted the program. His subject was "Changing Ways of Becoming a Doctor." He explained plans for the proposed medical school at the University of Missouri-Kansas City. He said that the method for training physicians is expected to be different from the usual course of study. A discussion of the "pros" and "cons" of the proposed method followed.

During a short business meeting, there was a discussion about plans to join the Buchanan County Medical Society in sponsoring a hospitality room at the Annual Session on April 2-5.

Dr. Allen discussed the deliberations and activities of the Blue Cross Meetings.

The meeting was adjourned.

Frank R. Daley, M.D., *Secretary*

SECOND DISTRICT

COUNCILOR
LYSLE M. BACH, M.D., HANNIBAL

Chariton-Macon-Monroe-Randolph County Medical Society

The Chariton-Macon-Monroe-Randolph County Medical Society held its monthly meeting at Woodland Hospital on March 12.

Dr. J. Will Fleming reported on a Second Councilor District meeting which he attended in Hannibal. He said the meeting concerned the proposed new medical school at the University of Missouri-Kansas City. Dr. E. Grey Dimond informed the group about the plans for graduating students from medical school in six years after high school. Sen. Richard Southern also spoke at the District Meeting and urged those present to vote for the income tax changes which are necessary for funding the medical school.

(*Left to right*) Secretary Clarence C. Cohrs of Moberly, President Philip V. Dreyer of Huntsville and Drs. J. Will Fleming, Jr. and Thomas S. Fleming welcome MSMA President Doyle C. McCraw to the Chariton-Macon-Monroe-Randolph County Medical Society meeting.

The principal speaker at the Society meeting was Dr. John E. Somers of Columbia, who was assisted by his partner, Dr. Gerald Orth. Dr. Somers discussed the modern treatment of strokes. During the discussion period, he also talked about methods for the treatment of Parkinson's Disease.

Dr. Orth stressed the usefulness of pain relief

CLINICAL
RADIOLO

His official visit to the Chariton-Macon-Monroe-Randolph County Medical Society meeting gave President Doyle C. McCraw an opportunity to visit with Dr. F. F. Harms of Salisbury and other long-time friends.

by interrupting the nerve supply to the pain area in cancer cases; the procedure usually by chordotomy.

The following physicians were present: Donald E. Eggleston, Gretchen D. Collins and James E. Campbell, Macon County; F. L. Harms, and Danield D. Stuart, Chariton County; Josephine D. Baker, J. Will Fleming, Thomas S. Fleming, Robert H. Young, W. Deward Chute, Clarence C. Cohrs, Lasley E. Huber, Robert V. Thompson and Philip V. Dreyer, Randolph County; and Floyd A. Barnett, Monroe County.

C. C. Cohrs, M.D., *Secretary*

SIXTH DISTRICT

COUNCILOR
WILLIAM D. BRADSHAW, M.D.,
CLINTON

Lafayette-Ray County Medical Society

The Lafayette-Ray County Medical Society held its March, 1970 meeting at Maib's Cafe in Lexington. Fifteen members and guests attended.

The business meeting was held after the dinner. There was a discussion of the business and resolutions to be introduced at the MSMA Annual Session in Kansas City on April 2-5. Resolutions were read and discussed and the Delegates were instructed in regard to the wishes of the Society concerning each of the resolutions.

Literature from the AMA concerning "Operation Grassroots" was read, and the Society voted to have at least one of the prepared statements sent to all local newspapers in both counties for publication.

Wayne Boydston, M.D., *Secretary*

West Central Missouri Medical Society

The regular monthly meeting of the West Central Missouri Medical Society was held at the Country Club at Nevada on March 5.

Following the social hour and dinner, the scientific section of the program was presented by David Ginter, M.D., from the University of Missouri-Columbia Medical Center. Dr. Ginter gave a presentation on histoplasmosis and its occurrence in the state of Missouri. He gave an interesting lecture on the history, physical findings and pathological slides of the disease process.

Following the program, the business meeting was called to order by the President, Dr. Roy W. Pearse of Nevada. Dr. Pearse read a letter about blood typing and grouping methods and antibody screening methods that are available for the local hospitals.

It was moved by Dr. Pearse and seconded by Dr. Magee that the April meeting of the Society not be held because of the Missouri State Medical Association meeting in Kansas City.

There was a discussion concerning revision of the Constitution and by-laws, but no definite changes were made. There also was a discussion about the yearly meeting with football coaches from the area which is usually held in Nevada. No decisions were made concerning the meeting.

Dr. Pearse announced that the next regular meeting of the Society will be held on May 4 in Butler. He said that Dr. Long will be in charge of securing the program and making local arrangements.

The meeting was adjourned.

Curtis W. Long, M.D., *Secretary*

NINTH DISTRICT

COUNCILOR
E. A. STRICKER, M.D., ST. JAMES

South Central Counties Medical Society

The South Central Counties Medical Society met on March 25 at the Charcoal Corral in Willow Springs. Dr. and Mrs. C. F. Smith were host and hostess for the evening.

A brief business meeting was held prior to the dinner.

Guest speaker was Leo Wyrsch, M.D., from the Women's Clinic in Springfield. Dr. Wyrsch gave an informative and interesting discussion with case presentations on "Amenorrhea."

Members present were Dr. and Mrs. Claude W. Cooper, Dr. and Mrs. Rollin H. Smith, Dr. and Mrs. W. Thomas Morgan, Dr. and Mrs. Amos L. Coffee and Dr. Jack Wiles.

The next meeting of the Society will be held on April 22, 1970 in Mountain Grove.

Jack N. Wiles, M.D., *Secretary*

TENTH DISTRICT

COUNCILOR
EUGENE T. HANSBROUGH, M.D.,
POPLAR BLUFF

Mineral Area County Medical Society

The Mineral Area Medical Society met at the Hoctor Building at Farmington State Hospital on March 26. The following physicians were

Can one prescription do the work of two?

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present: Marvin Grossman, David Mainz, Kirby L. Turner, Arthur W. Newcomb, George A. Oliver, Charles E. Carleton, Jack Mullen, Edward E. Mardini, George L. Watkins, Richard A. Fraser, W. Paul Dennis, Charles H. Appleberry, Charles W. Chastain, John W. Hunt, William Ford, Robert F. Dettmer, Stanton L. Hardy, Jack L. Foster, Tom R. Burcham, Robert A. Huckstep, Emmett F. Hoctor, Norma D. Farmer, F. Richard Crouch and Dr. Mohopatra.

The scientific program was presented by John Collins, M.D., Assistant Professor at Washington University School of Medicine, who discussed "Emergency Room Priorities." He particularly emphasized indications for and types of fluid replacement therapy in cases of massive trauma.

The business meeting was conducted by Andrew Fraser, President. Minutes of the meeting on Feb. 27, 1970 and the special meeting on March 12, 1970 were read.

Correspondence was reviewed, including a letter from the St. Francois County Health Department thanking the Society for its support. Letters from the Society Secretary to our two senators and congressmen and their responses were circulated among the members. The letters dealt with the recent congressional hearings on Medicare and Medicare Laws.

Dr. Chastain moved that a committee be appointed to review and revise the Society's Constitution and By-Laws to bring them up to date and that a peer review mechanism be included in these revisions. Dr. Burcham seconded the motion and it passed.

Dr. Fraser appointed Dr. Mullen as chairman of this Committee and Dr. Crouch, Watkins, Appleberry and Grossman as members.

There was a discussion of the Missouri State Medical Association annual session. The names of Delegates were read. Dr. Grossman stated that he would be unable to attend and had given his material to his Alternate, Dr. Osborn.

C. W. Chastain, M.D., *Secretary*

In Memoriam

McNew, William T., M.D., Carthage, a graduate of Washington University, 1936; member of Jasper County Medical Society; aged 60; died Feb. 18, 1970.

Ringo, Henry J., M.D., Centertown, a graduate of St. Louis University, 1924; member of Cole County Medical Society; aged 74; died March 4, 1970.

Tripodi, Anthony M., M.D., Seal Beach, Calif., a graduate of St. Louis University, 1915; member of St. Louis Medical Society; aged 82; died March 6, 1970.

Philip Saper, M.D., Rochester, N. Y., a graduate of Washington University, 1926; member of Jackson County Medical Society; aged 66; died March 9, 1970.

Seabold, John A., M.D., University City, a graduate of Washington University, 1909; member of St. Louis County Medical Society; aged 85; died March 15, 1970.

Jordon, Edward J., M.D., St. Louis, a graduate of St. Louis University, 1933; member of St. Louis Medical Society; aged 64; died March 21, 1970.

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The Missouri State Medical Association since 1943 has made available to its members a Special Disability Income Benefits Policy issued by our "Loyalty Group" Companies now a part of the America Fore-Loyalty Group Insurance Companies—the largest casualty-fire underwriting group in the world. The low cost at which the policy is offered is made possible through the purchasing power of the membership of your association as a whole.

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New Members

Hector Barragan, M.D., 944 Parkdale Circle, Ballwin, has become a member of St. Louis County Medical Society. Dr. Barragan is a native of Guadalajaro, Mexico, received his preliminary education at the University de Couhi La and his M.D. degree at the University de Nuevo Leon-Monterrey in 1958. He specializes in surgery.

Lafe W. Bauer, M.D., 2929 Baltimore Ave., Kansas City, has become a member of Jackson County Medical Society. Dr. Bauer is a native of Broughton, Kan., received his preliminary education at Kansas University and his M.D. degree at Kansas University in 1949. He specializes in anesthesiology.

Philip Carr, M.D., 1211 Glenstone, Springfield, has become a member of Greene County Medical Society. Dr. Carr is a native of Eldon, received his preliminary education at Westminster College and his M.D. degree at St. Louis University in 1961. He specializes in internal medicine.

Willie J. Cortez, M.D., Harwood at Chestnut, Lebanon, has become a member of Mid-Missouri County Medical Society. Dr. Cortez is a native of the Philippines, received his preliminary education at Laguna College and the University of St. Thomas and his M.D. degree at the University of St. Thomas, in 1957. He specializes in internal medicine.

Frank E. Emery, M.D., 118 Professional Bldg., Springfield, has become a member of Greene County Medical Society. Dr. Emery is a native of Wichita, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1959. He specializes in orthopedics.

James J. Godfrey, M.D., 502 E. Monroe, Mexico, has become a member of Audrain County Medical Society. Dr. Godfrey is a native of McKinney, Tex., received his preliminary education at Baylor and Oklahoma University and his M.D. degree at Oklahoma University in 1940. He specializes in psychiatry.

Stanley G. Hall, M.D., 9 Fair Oaks, Hannibal, has become a member of Marion-Ralls-Shelby County Medical Society. Dr. Hall is a native of Evansport, Ohio, received his preliminary education at the University of Toledo and his M.D. degree at Marquette University in 1959. He specializes in pathology.

Richard L. Johnson, M.D., 24th & Cherry, Kansas City, has become a member of Jackson County Medical Society. Dr. Johnson is a native of Chicago Heights, Ill., received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri in 1964. He specializes in internal medicine.

King Ying Lee, M.D., 6700 Troost, Kansas City, has become a member of Jackson County Medical Society. Dr. Lee is a native of Dermott, Ark., received his preliminary education at the University of Arkansas and his M.D. degree at the University of Arkansas in 1962. He specializes in ophthalmology.

Robert L. Lovett, M.D., 2743 S. Luster, Springfield, has become a member of Greene County Medical Society. Dr. Lovett is a native of Oklahoma City, Okla., received his preliminary education at State University of Iowa and his M.D. degree at State University of Iowa in 1962. He specializes in anatomic and clinical pathology.

J. Richard Melendez, M.D., 600 E. 22nd, Kansas City, has become a member of Jackson County Medical Society. Dr. Melendez is a native of Phoenix, Ariz., received his preliminary education at Stanford University and his M.D. degree at the University of Missouri in 1966. He specializes in psychiatry.

Joseph R. Prokop, M.D., 902 Edmond, St. Joseph, has become a member of Buchanan County Medical Society. Dr. Prokop is a native of Ebervale, Pa., received his preliminary education at Pennsylvania State University and his M.D. degree at Hahnemann University in 1959. He specializes in pediatrics.

James M. Smith, M.D., 7924 Paseo, Kansas City, has become a member of Jackson County Medical Society. Dr. Smith is a native of Mason City, Ia., received his preliminary education at St. John's University and his M.D. degree at the University of Iowa in 1964. He is in general practice.

Edward J. Weidmaier, M.D., 600 E. 22nd, Kansas City, has become a member of Jackson County Medical Society. Dr. Weidmaier is a native of San Jose, Calif., received his preliminary education at the University of Missouri and his M.D. degree at the University of Texas in 1965. He specializes in psychiatry.

Herbert A. Wenner, M.D., 1710 Independence Ave., Kansas City, has become a member of Jackson County Medical Society. Dr. Wenner is a native of Drums, Pa., received his preliminary education at Bucknell University and his M.D. degree at the University of Rochester in 1939. He specializes in pediatrics.

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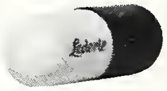

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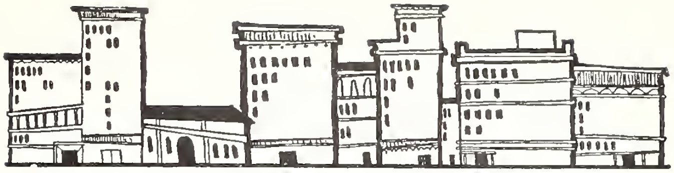

UNIVERSITY OF MISSOURI

Many physicians, hospital staff and medical students from Missouri attended the 1970 meeting of the Missouri Society of Internal Medicine and the state meeting of the American College of Physicians at the University of Missouri-Columbia Medical Center in March.

Among the special guests were James W. Haviland, president-elect of the American College of Physicians; William C. Felch, trustee of the American Society of Internal Medicine; Maxwell G. Berry, governor for Missouri's branch of the ACP, and Blaine Z. Hibbard, a trustee of the American Society of Internal Medicine.

Columbians participating in programs will include Drs. William D. Mayer, dean of medicine; Diane Brukardt, associate director of the student health service; from the Internal Medicine Department, Charles E. Mengel, chairman; John F. Maher, professor; David R. Ginder, Gordon C. Sharp, Patrick H. Henry, Daniel H. Winship, Thomas W. Burns and Donald W. Dickhaus, associate professors; Leonard Brubaker, William S. Irvin and David M. Klachko, assistant professors; and from the Medicine Department, Norman D. Asel, professor; Richard Martin and Philip C. Anderson, associate professors; James Dexter, Karl D. Nolph and Jalal Bahmshad, assistant professors.

Nursing and medical students at the University of Missouri-Columbia participated in a campus-wide Environmental Teach-In the week of April 20-25. A special program was planned for the public on April 21 in the Medical Center auditorium.

Guest speaker for the event was Dr. Melvin A. Benarde, author of a new book, "Our Precarious Habitat," written for nonscientists to explain how science and technology affect the general public. In presenting his study of the potential threats to life and health within our environment, Dr. Benarde discussed chemicals in foods, insecticides and animal diseases transmissible to man; waste-disposal systems and air- and water-pollution control; biological and chemical warfare, and other topics the layman is interested in.

Dr. Benarde is an associate professor in the department of community medicine at Hahnemann Medical College and Hospital, Philadelphia.

ST. LOUIS UNIVERSITY

Dr. Neil I. Gallagher, professor of internal medicine at the St. Louis University School of Medicine, has been named vice-chairman of the Department of Internal Medicine.

Dr. Gallagher also is director, St. Louis University Medical Service, Unit II, St. Louis Veterans Administration Hospital, a post he has held since 1961.

Dr. Gallagher

In his new administrative position, he will assist Dr. Thomas F. Frawley, professor and chairman of the Department of Internal Medicine. His new office is adjacent to Dr. Frawley's in the department on the ground floor of the St. Louis University Hospitals.

A graduate of the St. Louis University School of Medicine, Dr. Gallagher served as chief of staff, St. Louis Veterans Administration Hospital from 1966 to 1968 and as chief of medicine from 1963 to 1966. He was chief of the Radioisotope Laboratory from 1961 to 1968. He has been a member of the medical faculty and staff physician at the St. Louis University Group of Hospitals since 1959.

Dr. G. O. Broun, Sr., professor of internal medicine and dean emeritus, School of Medicine, is the recipient of the fifth Ralph A. Kinsella, Sr., award given annually to a distinguished alumnus by alumni and student members of the Lambda Chapter of Phi Beta Pi medical fraternity at the St. Louis University School of Medicine. Dr. Peter G. Danis, clinical professor of pediatrics, School of Medicine, presented Dr. Broun with a framed citation in recognition of his contribution to academic medicine as a distinguished professor, investigator, and physician. Keynote speaker was Dr. Robert E. Olson, professor and chairman, department of biochemistry, School of Medicine.

Dr. Broun is director of the Employee Health Services and medical director of the clinics at the St. Louis University Hospitals. He also is director of the virus laboratory at the St. Louis University Hospitals and is actively engaged in teaching and research at the School of Medicine.

An electrodiagnostic laboratory has been established at the St. Louis University Hospitals under the direction of Dr. Norman A. Rose, who is director of the Section of Physical Medicine and Rehabilitation at the School of Medicine. An electromyograph has been installed in the laboratory at the St. Louis University Hospitals. It is being used for muscle testing and teaching purposes.

The annual Ronald E. Rolfe Memorial Lecture, sponsored by the department of microbiology, will be delivered Friday, May 22, in Kelly Auditorium located on St. Louis University's frost campus. Guest lecturer will be Dr. Renato Dulbecco, a professor at Salk Institute for Biological Studies, San Diego, Calif. His lecture, entitled "Cell Transformation by Small DNA-Containing Viruses," is open to interested physicians.

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WASHINGTON UNIVERSITY

Washington University School of Medicine has announced that H. Relton McCarroll, M.D., has closed his private practice to accept a full time faculty position as a professor of orthopedic surgery.

Dr. McCarroll has been a member of the part time faculty since 1937 when he completed his residency at the St. Louis Unit of the Shriners Hospital for Crippled Children. Because of his continued outstanding teaching and practice, he was promoted to professor of clinical orthopedic surgery in 1966.

Washington University presented the M.D. degree cum laude to Dr. McCarroll in 1931. Prominent in the field of orthopedics, he has served as visiting professor at some of the major medical schools. He also has served on many national committees. In addition to his many contributions to national organizations, his work has been published extensively.

William M. Landau, M.D., professor of neurology, will succeed James L. O'Leary, Ph.D., M.D., as head of the Department of Neurology.

A native of St. Louis, Dr. Landau attended public schools here before taking his premedical education at the University of Chicago. He was graduated cum laude from Washington University School of Medicine in 1947. He joined the faculty of Washington University in 1952 and was promoted to professor of neurology in 1963. He also holds an appointment as research associate of the Central Institute for the Deaf. Dr. Landau served as a visiting professor at the University of Munich in 1963.

Dr. O'Leary, who in 1963 was named the first head of the department, will continue to be active in physiological and anatomical research after relinquishing his administrative duties. His worldwide reputation is based upon his investigations of brain function, particularly as they relate to the mechanisms, causes and treatment of epilepsy.

One of the earliest developers of the electroencephalogram (brain wave) test in the U. S., Dr. O'Leary established the Barnes Hospital EEG laboratory. He made important discoveries in nervous system anatomy and physiology relating to vision and sensation. His most recent research concerns the anatomy and physiology of the cerebellum.

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commended. Complete details available in product brochure from Mead Johnson Laboratories. **References:** (1) Fazekas,
F.; Alman, R. W.; Ticktin, H. E.; Ehrmantraut, W. R., and Savarese, C. J.: Angiology *15*:No. 2 (Feb.) 1964. (2) Horton,
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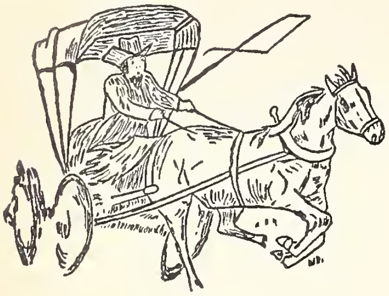

FORTY YEARS AGO

Sir Wilfred Grenfell went to Labrador in 1892 to determine whether or not medical service could be established among the British fishermen. He built up one of the most unique medical practices of today. As a physician, surgeon and magistrate, Sir Wilfred performs surgical operations, marriage ceremonies and settles disputes among the inhabitants. His work is made possible by his hospital ship, *Strathcona*, in which he cruises along the 1,500-mile coastline during the open water season, ministering to his patients. When the ship enters a harbor, the whistle is blown and the people of the village flock aboard. Sir Wilfred is now in this country giving lectures on Labrador as a means of raising revenue for his work.

The technical classification of monkeys and their diseases in relation to diseases of man is the subject matter of Hygienic Laboratory Bulletin 153 of the United States Public Health Service. The bulletin was prepared by Prof. C. W. Stiles of the United States Bureau of Animal Industry.

Dr. Guy L. Noyes, Columbia, dean of the Medical School of the University of Missouri, died of heart disease at the University Hospital in Columbia on February 4. He was 57 years old. At a meeting in Kansas City on February 8, the Board of Curators of the University named the University Hospital the Noyes Hospital in memory of Dr. Noyes.

TWENTY-FIVE YEARS AGO

Dr. E. F. Hoctor, Farmington, was the guest speaker at a regular weekly meeting of the American War Dads of Flat River recently and spoke on the problem facing the returning veterans.

Dr. Wallis Smith, Springfield, has been elected president of the Springfield Chamber of Commerce for a second term.—Dr. C. L. Lawless, Marshall, has been appointed county coroner for Saline County.

Forty-seven per cent or 9,649 medical officers indicated that they wished to return to practice in their former communities after the war. Lt. Col. Harold C. Lueth, Medical Corps, Army of the United States, reported in the April 21 issue of *The Journal of the American Medical Association* in the presentation of an analysis of answers to questionnaires sent to 21,029 medical officers. More than 21% or 4,310 signified that they did not intend to reengage in practice in their former communities. The 21,029 questionnaires studied represent about 35% of all medical officers on duty.

TEN YEARS AGO

In 1959, the Missouri Society for Crippled Children and Adults and its 115 county affiliates gave care and treatment to 4,861 physically handicapped children and adults, according to Dr. Richard H. Kiene, Kansas City, president of the Society. This represented an increase of 56% over the preceding year.

The House of Delegates of the 102nd Annual Session of the MSMA elected Jacob H. Summers, M.D., Lebanon, as President-Elect. Dr. Summers will serve as President-Elect during the coming year and will be installed as President at the meeting in Kansas City on March 18-21, 1961. Dr. Summers became a member of the Laclede County Medical Society, now a part of the Mid-Missouri County Medical Society, and the MSMA in 1932 following his internship.

Other officers elected at the Annual Session are Drs. Claude J. Hunt of Kansas City, Thomas S. Fleming of Moberly and Robert B. Bassett of St. Louis, Vice-Presidents; John I. Matthews, Jefferson City, Secretary; Charles R. Doyle, St. Louis, Treasurer; Donald M. Dowell, Chillicothe, Chairman of the Council; and Ben M. Bull, Ironton, Vice-Chairman of the Council. Drs. Durward G. Hall, Springfield, and H. E. Peterson, St. Joseph, were reelected Delegates to the American Medical Association.

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Missouri Medicine

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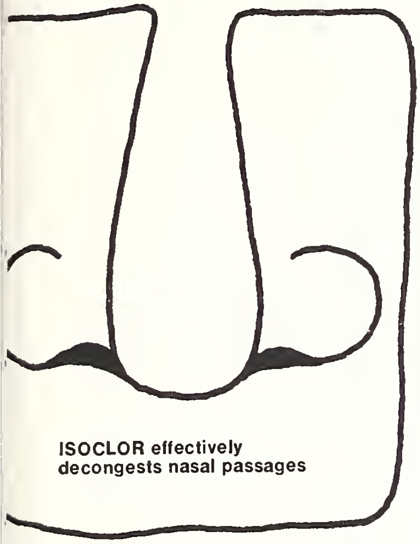
HERE ARE THE COLD FACTS:



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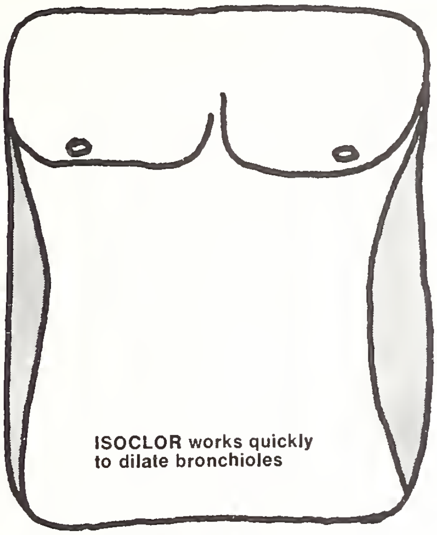

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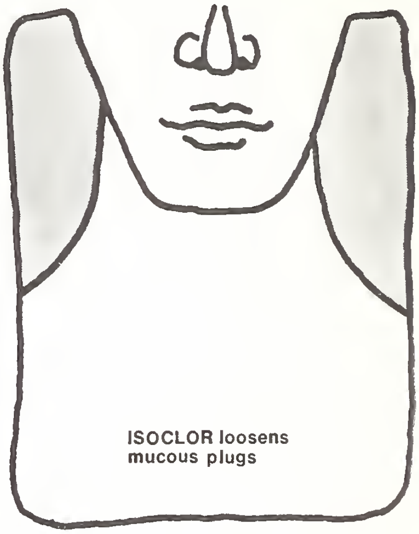

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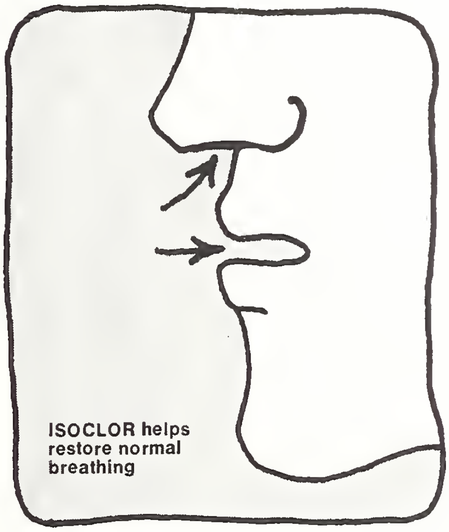

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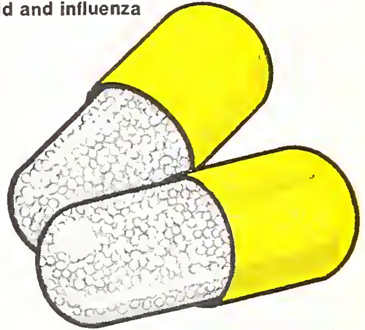

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lorpheniramine Maleate .... 4 mg.
eudoephedrine HCl .... 25 mg.

Each ISOCLOR Timesule contains:
lorpheniramine Maleate .... 10 mg.
eudoephedrine HCl .... 65 mg.
a special pellet form providing both prompt and sustained effect.

DICATIONS: For symptomatic relief of colds, hay fever, allergic njunctivitis, perennial rhinitis of allergic origin and sinusitis. ens nasal, sinus and bronchial passages orally.

CONTRAINDICATIONS: Sensitivity to antihistamines or sympathomimetic agents. Severe hypertension or severe cardiac disease.

PRECAUTIONS: Use with caution in patients suffering with hyperthyroidism. Patients susceptible to the soporific effects of chlorpheniramine should be warned against driving or operating machinery should drowsiness occur.

CAUTION: Federal law prohibits dispensing without prescription.

SUPPLIED: Tablets: Bottles of 100 and 1000. Liquid: 4 oz. bottles, pints, and gallons; Timesules: Bottles of 50, 250, and 1000.

DOSAGE AND ADMINISTRATION:	Tablets	Liquid	Timesule
Adults:	1 q. 4 h.	2 tsp. q. 3-4 h.	1 q. 12 h.
Children 6-12 years:		1 tsp. q. 3-4 h.	
40-50 pounds:		¾-1 tsp. q. 3-4 h.	
30-40 pounds:		½-¾ tsp. q. 3-4 h.	
20-30 pounds:		¼-½ tsp. q. 3-4 h.	
15-20 pounds:		⅛-¼ tsp. q. 3-4 h.	

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Special Article

Medicine's Message to a Lay Audience

WILLIAM J. LEWIS, M.D., ***Dayton, Ohio***

Physicians are called upon frequently to speak before lay audiences. Circumstances obviously dictate the subject matter as well as the approach. Here is an excellent example of the forthright and candid presentation in which the speaker relates to his audience. This article, which is reprinted here by special permission of The Ohio State Medical Journal, *is based on the text of Dr. Lewis's presentation before the Ohio Petroleum Marketers Association, Inc. Dr. Lewis is Chairman of the Ohio State Medical Association's Committee on Legislation, an Alternate Delegate to the AMA and Vice-Chairman of the Board of Directors of the Ohio Medical Political Action Committee.*

Many of the world's problems are those of communications. That is one of the reasons I am here tonight—our communications have suffered severely. We find in many instances the people whom we would expect to be our natural allies and whom we would expect to understand our problems and our reactions to governmental interference are all too often actively siding with those who seek to control all aspects of our society, or at best passively siding with them by their thunderous silence.

I am the first to admit that medicine has long been one of the leaders in the let's-not-get-involved race, but hopefully we have turned the corner. So tonight, we will play the game of first you listen to my troubles and then I'll listen to yours. We will all find out that they are the same, differing in semantics, but little if any in principle.

We hope that you will make an honest attempt to understand our positions in matters relating to health. And, if we seem to be brewing tempests in teapots about such matters as free choice of physician, direet billing of patients and reasonable and customary fees, we ask you to understand that we are trying to take a stand for individual freedom and choice and are resisting government regulation by a governmental bureau—regulations that are in many cases far from the intent of the laws duly passed by legislative bodies.

Although they may seem to be far removed, our problems in these matters are your problems. For if there are no voices raised in dissent now, there will be nothing to stop the same thing, in a different time and manner, from happening to you.

AMA Triggers Reactions

First, let me say a few words about that much maligned body, the AMA. These are letters that are guaranteed to immediately inspire editorial writers all across the country to the heights of journalistic invective and sarcasm, accompanied by great wailing, gnashing of teeth and the pouring of ashes over collective liberal heads. We find ourselves in a rather unique, albeit unenviable position of having a lousy collective image and, by and large, a rather good individual image.

Ask most any citizen what he thinks of doctors generally and the AMA in particular and you will likely hear a rather negative opinion. Ask him what he thinks of his own doctor—which is usually the only one he knows—and more often than not he will say, "He's different; he's okay."

That forces us, of course, to take stock of the situation and ask ourselves why this paradoxical situation exists. How much of the criticism is justified, and how can we correct it? Why is it that the press seems to consider the letters AMA just a bit more genteel than four letter Anglo-Saxonisms. . . .

Whatever the reason, you can reliably depend upon it, if there is a slow news day . . . the boys in the editorial room will fire a blast at that good old standby, the AMA.

Contrary to what you may have heard, the AMA is not the source of power in organized medicine. The County Medical Society is the source. A doctor cannot be a direct member of the AMA. He must be a member of his County Medical Society to be a member of the State Medical Association and he must be a member of the State Medical Association to be a member of the AMA.

Further, contrary to what you might think, a member of the Ohio State Medical Association is not required to be a member of the AMA. In addition, his not being a member does not compromise his ability to practice medicine. There are a few members of my own county society who do not belong to the AMA and I have no idea who they are. So it obviously does not compromise their ability to practice.

I say this only to answer the often repeated charge that we have the strongest union in the country.

Let me tell you something. You have never dealt with a wilder bunch of individualists who will not be intimidated than a group of doctors. If we just had half the union we are accused of having, and if our leaders had just one-tenth as much control over the individual doctors as you have been led to believe, then you can rest assured our wishes in the matters of the purveying of health care would long since have been listened to. But this is not what we want. We want members of the medical profession to have minds of their own, and we want them to speak their piece—and believe me they do when they feel they are being dictated to by their own leaders. We want membership in the AMA to remain voluntary.

217,000 Decide Voluntarily

Nationally, some 217,000 physicians have elected to join the AMA.

Delegates are elected from the county society to the state meetings where delegates are elected to the AMA House of Delegates. The House of Delegates elects the Board of Trustees and the President of the AMA. The Board of Trustees conducts the business of the organization between the semi-annual meetings of the House of Delegates. So you can see it is a grass roots organization. Now don't get me wrong; none of us here is naive. We all know that in any organization the opportunity often exists for grass roots participation, but it many times is not taken advantage of. We have our problems in this regard also, but we are working on getting more involved at the local levels in all matters, both political and medical.

But don't let anyone sell you on the idea that there are just a few iconoclasts sitting in headquarters in Chicago, who make all the decisions regarding medicine without regard to the membership's wishes. Naturally, I don't agree with all the decisions the leaders make, nor would I ever expect to, but the vocal few who charge they have no voice in policy and who criticize the AMA bitterly from within the profession are a small minority, really.

The Real AMA

I dare say that there are few if any of you in this room who realize that the AMA does anything but spend astronomical sums of money in Washington in trying to thwart the will of the people by buying legislator's votes and in trying to elect candidates somewhat to the right of William McKinley in political philosophy.

Well, this "huge" AMA Washington lobby consists of less than a dozen persons covering 100 senators, 436 representatives, plus hundreds, if not thousands, of executive offices involved in medicine and health. I would be willing any time to have a comparison of all the energies and monies spent on lobbying activities with our friends of the AFL-CIO and their COPE organization. Anytime, that organization is welcome to "belly up to the bar" and put all of its cards, and we put ours, on the table. For over a hundred years, the OSMA and AMA have had as their stated purposes the betterment of medical science and art and the protection of public health.

The AMA and the OSMA, as a component of the AMA, has had a direct involvement in:

The purity and quality of the drugs that you use;
The training and ethics of the physicians who treat you;
The safety and nutrition of the foods you eat;
The health and safety of your child in school and athletics;
The safety of your wife's cosmetics;
Exposure of medical quackery and chicanery;
The protection of the individual against unlicensed and incompetent practitioners

Also, through voluntary contributions from physicians, their wives and interested groups and concerns, there has been made available nearly $50 million in loans to medical students and outright donations of more than $40 million to the medical schools which have been given in the past 14 years. More than 1,000 meetings a year are held to help your doctor be a better doctor, or to promote public health and education.

These represent only an extremely small amount of AMA activity and on a smaller scale, the OSMA activities. If you were to visit the AMA headquarters in Chicago you would be amazed at the many committees, meeting daily from all over the country, dealing with the betterment of health for you, our patients—where the words "Medicare," "Medicaid" or "Wilbur Cohen" are never even mentioned. But you don't hear of these, because they have become commonplace and, therefore, not news. I have given you this commercial message because it is vitally important to us that you, who we hope we can count among our friends, know a bit more about us than what you might read in the paper.

Times Have Changed

Not too many years ago, it made little difference what political party was in power in Washington, from the standpoint of medicine. Whenever problems arose that were peculiar to medicine, either scientific or social, the people directly involved in providing medical care—US—physicians—were usually consulted, as strange as that may seem. However, I am sure it comes as no great surprise to any of you that times have changed somewhat.

Now, because a problem is related to medicine does not mean that medical people will be consulted—*au contraire*—as recent history has demonstrated, we were not only not consulted, but our unsolicited advice was roundly ignored. Now this came as quite a shock to many doctors who thought that the only thing one needed to do politically was to think lovely thoughts and everything would come out peachy keen.

Thinking good thoughts was not enough. We found ourselves in the somewhat unpleasant position of coming in too late with too little, and found ourselves playing the game of our opponents, on their field, by their rules. We not only lost, but came out looking like heavies whose total commitment in life was to further the suffering of the poor and the aged in America—these same people who have been our friends and patients for lo these many years before and since.

We found ourselves in the unenviable position of knowing that the programs proposed, both Medicare and Medicaid, were going to be at least twice as expensive as the government witnesses said they were going to be, even if there were no inflation nor increase in the utilization of services. Other independent witnesses, such as insurance executives, etc., agreed to this, incidentally, and we also knew that when the programs did cost more than HEW estimated it would, HEW would then say that everything would have been all right if it hadn't been for those damn greedy doctors gouging the system. And, when Medicaid was added, the calculations were so bad that of the first year's estimate of the cost for 50 states, New York State alone would have taken about 80% or so of the total budgeted.

The government has been talking out of both sides of its mouth. Surely you will remember the high sounding mellifluous speeches about "no more charity medicine." Older Americans were assured that their medical care was now being taken care of, and they were encouraged to take advantage of it. It stands to reason, then, that the cost of care would go up since a great deal of work that was being done for free or for a reduced cost was now being billed at regular (not higher) rates. And this because of the solemn promise of the government, "That all your medical bills would be taken care of."

Medicaid the Sleeper

And then came along the sleeper Medicaid, or Title XIX as it is known. This, as you may know, is a part of a bill that takes care of the indigents under 65 and is administered by the states with federal direction and assistance. If you have been reading the papers at all lately, you have, I am sure, seen the juicy headlines about the names of doctors being published who have received $25,000 or more from Medicaid funds during the past year, and also you may have noticed that the Internal Revenue Service has obligingly agreed to give special attention to the auditing of the returns of these doctors. Well, let's take a look at that. For the fiscal year ending June 30, Ohio spent $101,883,000 under Medicaid. The number of cases was about 717,000, an increase of 116,000 over fiscal year ending 1968. Of the total expenditures for Medicaid, physicians received $7.7 million for their services. This represents about 7% of the total health care expenditures under this program. Further, physicians are paid, when they are paid, only 60% of the fee they submit. It makes no difference if you lower your fees because the patient is on welfare, you then get paid 60% of your reduced fee. The 60% figure then equals the $7.7 million I was speaking of; full payment of the physician's usual and customary fee (not inflated fee) would have been $12,822,333, which means that Ohio physicians contributed $5,133,000 to the Ohio welfare patients this past year—that, in addition to many services rendered that weren't even billed because of the red tape involved, etc. I daresay that I would not be overwhelmed by a show of hands if I asked how many read that in the newspapers lately, would I? And, we really don't care about that.

Poor Are Not to Blame

Let me make it clear that we do not blame those unfortunates who are on relief, and we are pledged to see that they get care even if we do not get a dime for it, but we are a bit chagrined to have the welfare workers on the one hand encouraging these people to see their doctor anytime they wish and to tell them that the state will pick up the tab, and then have the state and federal government complain about the number of the welfare visits and accuse the doctors of overtreating.

Let me make another point abundantly clear. The Ohio State Medical Association has been and is still on public record many times in favor of a thorough investigation of the whole Title 19 and welfare system, and when wrongdoing is uncovered, we want those guilty punished. But we resent blanket charges and slurs that impugn the whole profession without specifics to back up the allegations.

Publicity earlier this year about Ohio physicians paid $25,000 or more for services to Medicaid patients failed to point out that the few physicians it named happened to practice in or near inter-city areas where a large number of their patients were on Medicaid and welfare. Further, a check by the OSMA found that these payments averaged less than $50 per patient per year. Five or six visits a year could amount to that. Another omission from the news media stories was the fact that some of the services were provided and billed as far back as 1966—and some even before that—and were just now being paid. You didn't read about that, either.

Government Doesn't Know

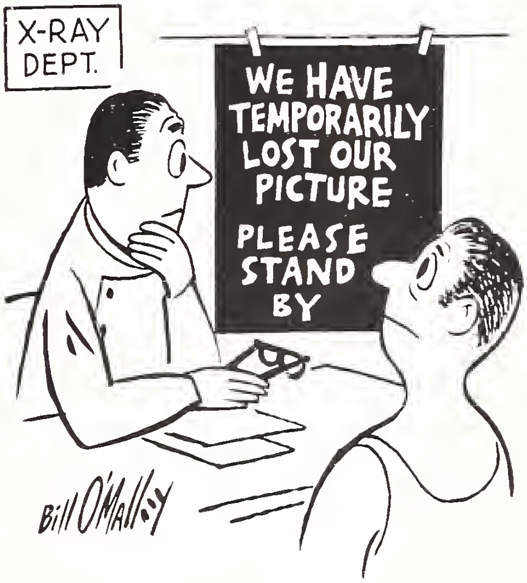
When the president of the OSMA asked in the case of the physicians publicly named as having received $25,000 or more for the Ohio Department of Public Welfare to provide a breakdown of the number of patients seen, number of times each patient was seen, types of treatment, charge for professional services, etc., the Ohio Department of Public Welfare director of research and statistics wrote back, "The specific detail that you requested in items six through 11 of your letter cannot be provided. While some of the detail is now contained in state records, the cost of extracting it at this time is prohibitive. For some of the detail the cost of introducing it into the state records would be prohibitive."

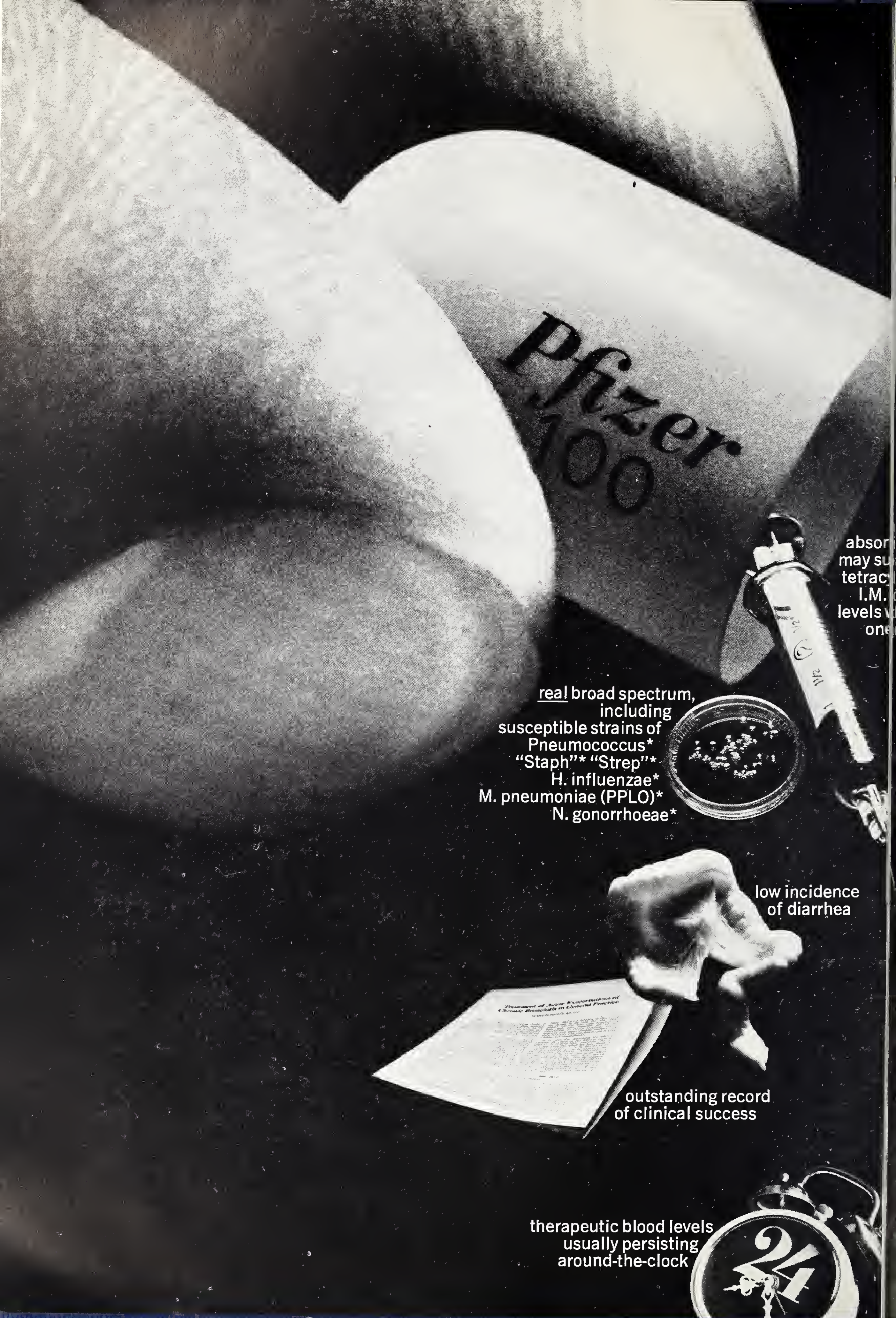
In other words, the state seems to be saying that the cost of finding what welfare pays for and what it is getting for the taxpayers' dollar is prohibitive.

The real tragedy about the publishing of these names and the harassment of these physicians is that most of them are working in the areas where the need is great and the monetary rewards often small. It seems grossly unfair to persecute men who are performing a sorely needed service to their patients and to their communities. If there are chiselers, let me assure you we don't want them any more than you do, but common decency should prohibit painting everyone with the same broad brush.

Well, I didn't come only to cry on your shoulders. I feel we should take a realistic look at our overall problems. Why are we in this mess to begin with? First, let me state that we know that all is not perfect with medical care in this country. There are deficiencies, and there are, I am sure, people not receiving the kind of care we would like for them to have. We firmly believe this should not be so.

(Continued on page 393)

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24

WASHINGTON

The House Ways and Means Committee approved legislation that would change the Medicare program to permit prepaid closed-panel group practice care and would set ceilings on physicians' fees under Medicare and Medicaid.

The committee did not consider national heath insurance proposals for legislative action this year.

A proposal for inclusion of chiropractic under Medicare was rejected. However, a compromise provision would direct the Health, Education and Welfare Department to conduct a "very limited" study of chiropractic under Medicare, utilizing the experiences under Medicaid. Chiropractic now is a Medicaid service in 15 states, being authorized for federal funds to the extent that it is legal in the state. Representatives of chiropractors lobbied intensively with committee members for the same treatment under Medicare.

The committee also decided against inclusion of social security disabled beneficiaries under Medicare. Instead, the proposal was referred to the Health Insurance Benefits Advisory Council for further study.

The House was expected to approve the committee's bill, which included a 5% increase in cash Social Security benefits, without change. However, changes were expected in the Senate.

Provisions of the committee bill of major importance to physicians included:

—*Health Maintenance Organization Option:* Individuals eligible for both Part A and Part B Medicare coverage would be able to choose to have their care provided by a health maintenance organization (a prepaid group health or other capitation plan). The government would pay for such coverage on a capitation basis not to exceed 95% of the cost of Medicare benefits provided to beneficiaries in the area not covered under the health maintenance organization.

—*Experiments and Projects in Prospective Reimbursement and Incentives for Economy:* The secretary of HEW would be required to develop experiments and demonstration projects designed to test various methods of making payment to providers of services on a prospective basis under Medicare, Medicaid and Maternal and Child Health. In addition, the secretary would be authorized to conduct experiments with methods of payment or reimbursement designed to increase efficiency and economy and with community-wide utilization review mechanisms.

—*Limitation on Recognition of Physician Fee Increases:* Charges determined to be reasonable under the present criteria in Medicare, Medicaid and Maternal and Child Health Law would be limited by providing: (a) that for fiscal year 1971, medical charge levels recognized as prevailing may not be increased beyond the 75th percentile of actual charges in a locality during calendar year 1969; (b) that for fiscal year 1972 and thereafter, the prevailing charge levels recognized for a locality may be increased, on the average, only to the extent justified by increases in the cost of production of medical services, levels of living and the earnings of other professional, managerial and technical personnel; and (c) that for medical supplies, equipment and services that, in the judgment of the Secretary, generally do not vary significantly in quality from one supplier to another, charges allowed as reasonable may not exceed the lowest levels at which such supplies, equipment and services are widely available in a locality.

—*Payments for Services of Teaching Physicians:* Medicare and Medicaid would not pay for the services of teaching physicians unless other patients who have insurance or are able to pay are also charged for such services and the Medicare deductibles and coinsurance amounts are regularly collected. Medicare-attached payment would be authorized for services to hospital patients by staff of certain medical schools that now furnish these services without charge to the hospital.

—*Termination of Payments to Providers Who Abuse the Medicare Program:* The Secretary of HEW would be given authority to terminate or suspend payment for services rendered by a supplier of health and medical services found to be guilty of program abuses. Program review teams would be established to furnish the Sec-

(Continued on page 391)

Missouri Medicine Receives MPW First Place Award

MISSOURI MEDICINE has received a first award in the Missouri Press Women's annual writing contest.

Miss Jean Duensing, managing editor for the MSMA Journal, accepted the first place in the "Magazine Edited by a Woman" category at the organization's annual awards luncheon held this year at Aldridge Hall, William Woods College in Fulton on May 8.

Certificates were awarded to members with first, second and third place entries in the categories of writing, editing, advertising, photography, radio and TV as part of the 61st Annual Journalism Week at the University of Missouri-Columbia. Entries were judged by UMC School of Journalism faculty members.

The awards were presented by Mrs. Joan Arsenault, St. Louis, contest chairman and associate editor of *The Optimist Magazine*.

Missouri's first place entries have been sent to the annual contest of the National Federation of Press Women. Mrs. Mary Alice Campbell, MPW president and women's editor of the *Neosho Daily News*, said that national winners will be announced at the national convention on June 24-27 in New Orleans.

Other MPW officers are vice-president, Mrs. Mary Jane Peironnet, women's and youth editor, *The Dispatch Newspapers*, North Kansas City; secretary, Mrs. Ann Fair Dodson, newswriter, *Springfield Newspapers, Inc.*; and treasurer, Miss Jean Duensing, Jefferson City.

Mrs. Mildred Planthold Michie, St. Clair, is president of the National Federation of Press Women and will preside at the convention in New Orleans. A former women's editor and food and fashion editor for the *St. Louis Globe-Democrat*, Mrs. Michie now owns an advertising and public relations agency bearing her name. She is chairman of the board of trustees of the Scenic Regional Library system of Missouri.

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from primary or secondary atrophy of the gland, congenital
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SYNTHROID (sodium levothyroxine) **Tablets** include myx
hypothyroidism without myxedema, hypothyroidism in pre
pediatric and geriatric hypothyroidism, hypopituitary hypo
ism, simple (non-toxic) goiter, and reproductive disorders ass
with hypothyroidism. SYNTHROID (sodium levothyroxine) **In**
is indicated in myxedematous coma and other thyroid dysfu
where rapid replacement of the hormone is required. Whe
tient does not respond to oral therapy, SYNTHROID (sodiu
thyroxine) injection may be administered intravenously to av
question of poor absorption by either the oral or the intram
route.

Precautions: As with other thyroid preparations, an over
may cause diarrhea or cramps, nervousness, tremors, tach
vomiting and continued weight loss. These effects may beg
four or five days or may not become apparent for one to three
Patients receiving the drug should be observed closely for
thyrotoxicosis. If indications of overdosage appear, disc
medication for 2-6 days, then resume at a lower dosage
patients with diabetes mellitus, careful observations should b
for changes in insulin or other antidiabetic drug dosage
ments. If hypothyroidism is accompanied by adrenal insuffici
Addison's Disease (chronic subcortical insufficiency), Simn
Disease (panhypopituitarism) or Cushing's syndrome (hype
alism), these dysfunctions must be corrected prior to and
SYNTHROID (sodium levothyroxine) administration. Th
should be administered with caution to patients with cardiov
disease; development of chest pains or other aggravations
diovascular disease requires a reduction in dosage.

Contraindications: Thyrotoxicosis, acute myocardial infarct

Side effects: The effects of SYNTHROID (sodium levoth
therapy are slow in being manifested. Side effects, when
occur, are secondary to increased rates of body metabolism
ing, heart palpitations with or without pain, leg cramps, and
loss. Diarrhea, vomiting, and nervousness have also been ob
Myxedematous patients with heart disease have died from
increases in dosage of thyroid drugs. Careful observatio
patient during the beginning of any thyroid therapy will a
physician to any untoward effects.

In most cases with side effects, a reduction in dosage foll
a more gradual adjustment upward will result in a more a
indication of the patient's dosage requirements without the
ance of side effects.

Dosage and Administration: The activity of a 0.1 mg. SYN
(sodium levothyroxine) TABLET is equivalent to approxima
grain thyroid, U.S.P. Administer SYNTHROID tablets as
daily dose, preferably after breakfast. In hypothyroidism
myxedema, the usual initial adult dose is 0.1 mg. daily, and
increased by 0.1 mg. every 30 days until proper metabolic ba
attained. Clinical evaluation should be made monthly a
measurements about every 90 days. Final maintenance dos
usually range from 0.2-0.4 mg. daily. In adult myxedema,
dose should be 0.025 mg. daily. The dose may be increase
mg. after two weeks and to 0.1 mg. at the end of a second tw
The daily dose may be further increased at two-month inte
0.1 mg. until the optimum maintenance dose is reached (0.1
daily).

Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2
mg., 0.5 mg., scored and color-coded, in bottles of 100 and 5
tion: 500 mcg. lyophilized active ingredient and 10 mg. of
N.F., in 10 ml. single-dose vial, with 5 ml. vial of Sodium
Injection, U.S.P., as a diluent.

SYNTHROID (sodium levothyroxine) INJECTION may be
tered intravenously utilizing 200-400 mcg. of a solution co
100 mcg. per ml. If significant improvement is not shown th
ing day, a repeat injection of 100-200 mcg. may be given.

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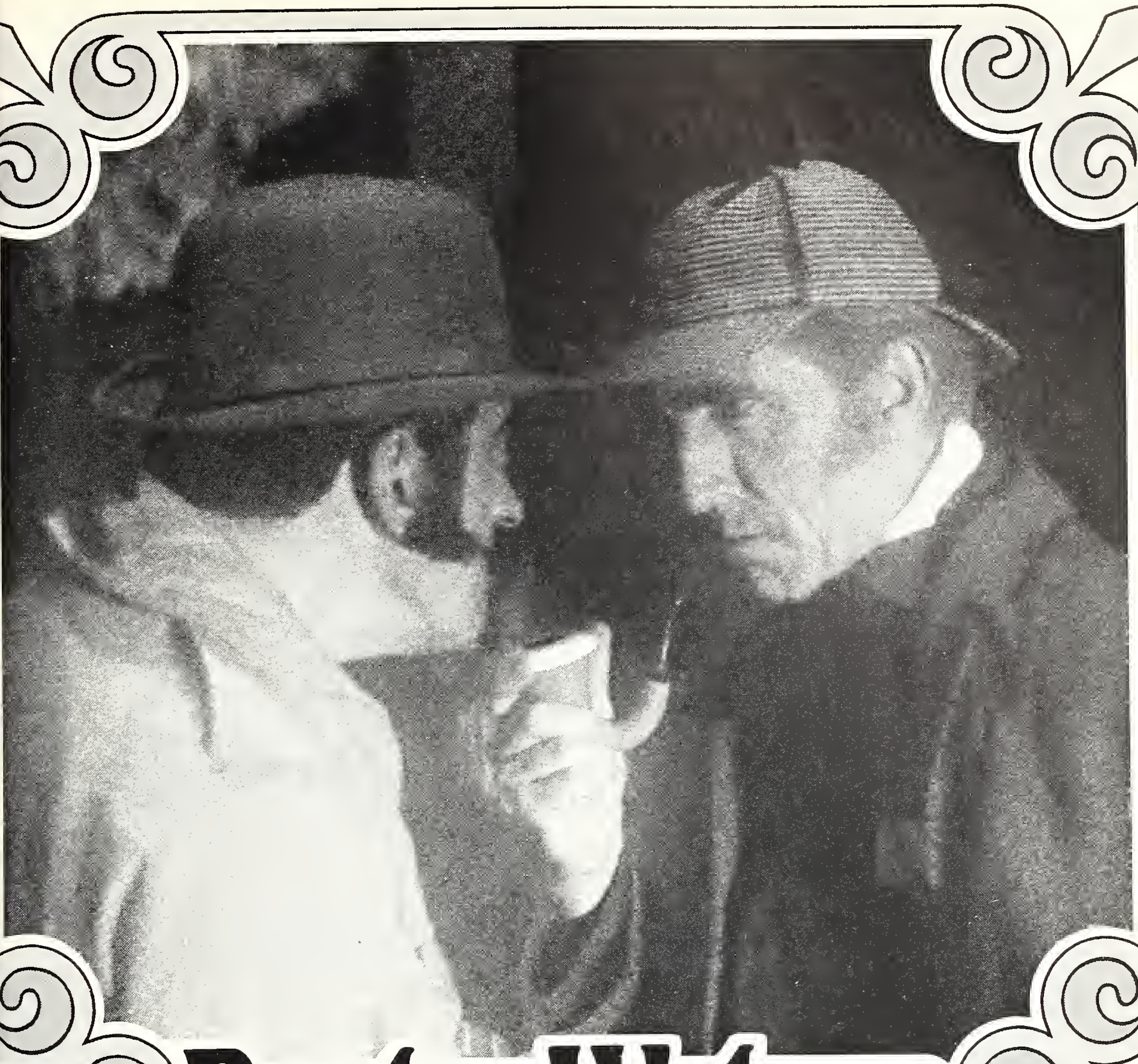

Doctor Watson
xposes a double agent

g on the Embankment. Two figures emerge into silhouette against a loed street lamp. The flare of a match reveals the profile of Sherlock olmes. As he lights his calabash, his companion speaks:

y Jove, Holmes, that amazing intuition of yours has proved right ain. What we're looking for is a single entity. I thought we were aling with several others—even twins. But now—I'd say we've covered a double agent."

Tell me more, Watson, and be quick about it!"

Vatson withdraws a folded paper from inside his greatcoat, and ads aloud from it):

The key to the whole cypher is SYNTHROID (sodium levothy-xine)"...

Shhh! Watson, not so loud! You'll alert our quarry."

Vatson continues): "A single entity that serves two functions."

A master stroke, Watson."

Follow along, Holmes. In the neighborhood of 95% of the circulat-g thyroid hormone is levothyroxine—T_4 as you call it. T_4 is bound thyroxine-binding proteins in the serum. It becomes available only radually to tissue cells—as free thyroxine."

"Is that why there's such a smooth, predictable response, Watson?"

"Quite! With agent T_4, SYNTHROID, the chances of a precipitous rise in metabolic rate are lessened."

"But how does 'free' thyroxine fit into the picture?"

"Well, Holmes, you might call it the tissue thyroid hormone—because 'free' thyroxine (that is, thyroxine not bound to protein) is active at the tissue level. It is gradually released from thyroxine-binding proteins. Each daily dose of SYNTHROID is mostly bound to thyroid-binding proteins, and slowly released as 'free' thyroxine—the form in which it is metabolically active."

"Magnificent, Watson! So protein-bound thyroxine is the major form of circulating thyroid hormone, and it is released as 'free' thyroxine. And that's why SYNTHROID is able to simulate the normal process so artfully. Q.E.D."

"Not so fast, Holmes. SYNTHROID works for the *physician*, too. Because its dosage is more precisely controllable, and because response is so smooth and predictable, the *doctor* gets fewer phone calls in the wee hours from agitated patients. Both parties get more sleep!"

"Comforting, my dear doctor, to know that SYNTHROID, the 'single agent,' cleverly does the job of two."

Synthroid® (sodium levothyroxine)

medical melange

Notes of interest from Here .... and There

Dr. Alfred D. Biggs, Jr., who has practiced medicine in Kansas City for six years, has been awarded the internist award of the American Society of Internal Medicine at its national meeting in Philadelphia recently. The citation reads: "In recognition of his distinguished services to the society and to internal medicine and for his contribution to and understanding of the importance of the role of socioeconomics to the practice of medicine." Dr. Biggs is a member of the staff of Research Hospital.

Dr. Urban J. Busiek, Springfield's first pediatrician, was honored at a luncheon recently at Cox Medical Center in appreciation of 50 years of service to the hospital and community. Mr. Lester L. Cox, chairman of the board of the hospital, presented a certificate of service to Dr. Busiek during the luncheon which was attended by civic leaders and a host of friends. Dr. Busiek and his sons, Paul and Erwin, are all practicing physicians in Springfield. According to Dr. Busiek, retirement is "not in the picture" for him.

Dr. Jack I. Kenzler, associate medical director of the Sutter Clinic in St. Louis, was elected to the Board of Directors of the Industrial Medical Association, international society of physicians in industry, at the Association's 55th annual meeting in Chicago in April.

Mrs. Virginia Barnett, executive secretary of Talking Tapes, has announced that **Mr. Edgar J. Mothershead,** author of "Of Many Pens," will read his book onto talking tapes for the blind. Talking Tapes are designed to aid the blind in their school work and are supported by volunteer contributors and workers. Mr. Mothershead divided his book into several 30-minute sections so that they can be used by high school poetry, English and journalism classes and by University students of journalism and poetry. Mr. Mothershead is Executive Secretary of the St. Louis County Medical Society.

Dr. William E. Allen, Jr., a member of the Executive Committee of the Tuberculosis and Health Society of St. Louis, and Mrs. Evelyn Williams, educational staff member with the Society, were guests on Mr. Ronn Nichol's "Heads Up" program on KMOX-TV in April. Dr. Allen is well-known for his work in radiology and is on the staffs of the Homer G. Phillips, Firmin Desloge and Cardinal Glennon Hospitals. He is a faculty member at St. Louis University.

Dr. Gordon Stauffacher, Sedalia, has been appointed to a one-year term on the State Chapter Editors' Committee of the American Academy of General Practice. The four-member Committee studies chapter publication problems and recommends solutions to improve content, format and advertising.

Dr. E. James Potchen, St. Louis, has been elected to the U.S.P. Committee of Revision that will be responsible for the preparation of the United States Pharmacopeia to appear in 1975. The Committee is comprised of 60 members, 20 of whom are qualified in the medical sciences and 40 of whom are qualified in the pharmaceutical and allied sciences.

Dr. Hanford Phillips, a past vice-president of the St. Louis County Medical Society and past-president of the St. Louis Hypnosis Society, recently delivered his 90th speech under the auspices of the St. Louis County Medical Society. While he is well-known for his research in and use of hypnosis, Dr. Phillips also speaks on subjects that include obesity, high blood pressure, speech defects and hypertension. A member of the staffs of Missouri Baptist and Deaconess Hospitals, Dr. Phillips donates his honorariums to his County Medical Society.

Dr. J. Ned Smith, Jr., who recently joined the Woodland Hospital Clinic in Moberly, is the author of a new textbook on "Essentials of Gastroenterology" for medical students. Dr. Smith has been on the faculty of the University of Missouri School of Medicine since 1956. He specializes in internal medicine.

Dr. Eugene Bortnick, Kansas City, an otolaryngologist, presented a paper entitled "Surgical Records and Diagrams in Rhinoplasty" at the sixth annual scientific meeting of the American Academy of Facial Plastic and Reconstructive Surgery, Inc. in Hollywood Beach, Fla. in April. Dr. Bortnick is Clinical Assistant Professor at the University of Kansas Medical Center and is on the staffs of the Menorah Medical Center, Research Hospital and Medical Center and the Baptist Memorial Hospital.

Dr. Evan A. Peterson has been elected chief of staff at Sisters Hospital in St. Joseph. Other newly-elected officers are **Dr. G. T. Carpenter**, president-elect, and **Dr. L. H. Pifer**, secretary-treasurer.—The Board of Control at Levering Hospital in Hannibal has announced that **Dr. Phillip B. Foreman** has accepted the appointment of chief of staff at the hospital. Dr. Foreman is President of Marion-Ralls-Shelby County Medical Society.

Dr. John S. Spratt, Jr., chief surgeon at Ellis Fischel State Cancer Hospital in Columbia, was named "Boss of the Year" by the Show-Me State Chapter of the American Business Women's Association in Columbia in May. Dr. Spratt is founder and director of the Cancer Research Center at EFSCH, a professor of surgery at the University of Missouri School of Medicine and a lecturer in surgery at Washington University in St. Louis. He is on the board of directors of the Missouri Division of the American Cancer Society.

National X-ray Exposure Study Is Announced

(The following information is being published in Missouri Medicine *at the special request of the Surgeon General of the Public Health Service, U. S. Department of Health, Education and Welfare.*—Ed.*)*

The Public Health Service will conduct a national study to obtain information on population exposure to diagnostic and therapeutic X-radiation. It began on April 13 and will be made jointly by the Bureau of Radiological Health and the National Center for Health Statistics. The study was planned with the advice of a group of radiologists and physicists representing the American College of Radiology.

The study follows two earlier national X-ray surveys by Public Health Service Agencies. The first was conducted in 1961 to estimate the volume of medical and dental X-ray visits in the United States. A more comprehensive study was made in 1964 to extend the X-ray visit data to include exposure and dose estimates for the U. S. population in that year.

The 1970 study will use the same collection and analysis methods employed in the 1964 survey so that results of the investigations will be directly comparable. This will afford the opportunity to evaluate the effectiveness of programs to improve X-ray practice and reduce unnecessary exposure. The 1970 study also will aid in establishing guidelines for future programs.

The new study will be conducted in three phases:

—A household interview survey to obtain the X-ray visit experience of a representative sample of the U. S. population. This phase will run from April 13 through October 12 and will cover about 20,000 households and 65,000 persons.

—A follow-up questionnaire to obtain examination data from X-ray facilities identified in the household survey. From May through December, approximately 5,000 facilities will be asked to supply these details. Authorization to request the information will be obtained in advance from houschold respondents.

—An X-ray equipment survey to provide physical measurements in a selected sub-sample of X-ray facilities. This phase will be conducted by specially trained State and Federal radiological health personnel.

Based on data obtained during the household and facility surveys, a descriptive analysis of the population's X-ray experience in 1970 will be prepared. The information, which will be categorized by pertinent demographic and facility characteristics, will include estimates of numbers and rates for (1) persons X-rayed, (2) X-ray visits and (3) X-ray examinations and exposures.

Estimates of gonadal and genetically significant dose will be derived from the study findings by applying mathematical models developed at the Johns Hopkins and Emory Universities in collaboration with the 1964 study. It also is planned to extend these data into dose estimates for other selected body organs through the use of related research results.

Since this study is based on a small representative sample, the cooperation of each practitioner contacted in the follow-up phase is essential to meet the study objectives. All information pertaining to individual patients, practitioners and facilities will be treated confidentially. Only statistical summaries will be made available for publication.

Additional information about plans for the survey may be obtained from the Bureau of Radiological Health, 1901 Chapman Avenue, Rockville, Md. 20852.

ACCIDENT AND HEALTH INSURANCE

The Missouri State Medical Association since 1943 has made available to its members a Special Disability Income Benefits Policy issued by our "Loyalty Group" Companies now a part of the America Fore-Loyalty Group Insurance Companies—the largest casualty-fire underwriting group in the world. The low cost at which the policy is offered is made possible through the purchasing power of the membership of your association as a whole.

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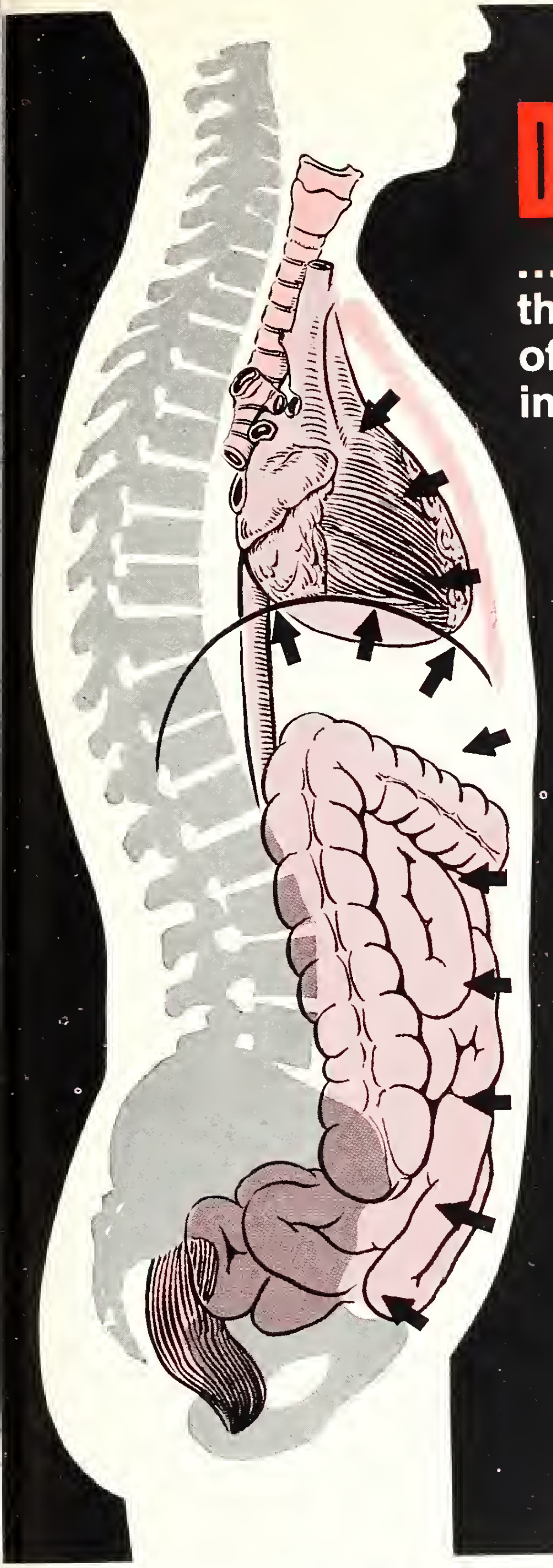

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*Best, C. H. and Taylor, N. B.: *The Physiological Basis of Medical Practice*, 7th edition, Williams and Wilkins, Baltimore, 1961, p. 480.

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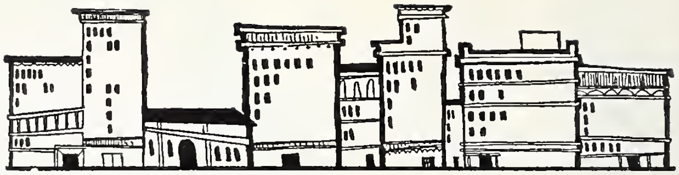
From the Medical Schools



WASHINGTON UNIVERSITY

The highest award of the American College of Physicians was presented to Carl V. Moore, M.D., Busch Professor of Medicine and head of the department, School of Medicine, on April 12.

Dr. Moore

Dr. Moore, who also is physician-in-chief for Barnes Hospital, received the John Phillips Memorial Award for distinguished contributions in internal medicine at the 51st session of the College meeting in Philadelphia, Pa. On April 15, he delivered the annual Phillips Lecture. His title was "Dyssplenism and the Organ of Mystery."

The only other St. Louisan to receive the Phillips Award, which was established in 1932, was Leo Loeb, M.D., Washington University School of Medicine pathology professor, who was honored in 1935 for his cancer research. Sol Sherry, M.D., professor and head of the department of medicine at Temple University School of Medicine in Philadelphia, received the award in 1968 for his contributions in fibrinolysis and thrombolysis. Dr. Sherry was on the Washington University medical faculty from 1954 to 1967.

Dr. Moore was vice-president of the American College of Physicians in 1960-1961, president of the American Society of Hematology in 1959-1960 and president of the International Society of Hematology from 1966 to 1968. He attended St. Louis public schools and received the M.D. degree (cum laude) from Washington University in 1932.

Dr. Robert E. Shank, St. Louis, has received the highest honor awarded to alumni by Westminster College in Fulton. He is head of the Department of Prevention Medicine at the Washington University School of Medicine.

A nutrition expert, Dr. Shank received the award for outstanding success in one's field. He received his undergraduate degree in 1935 from Westminster and was graduated in 1939 from the School of Medicine.

MISSOURI UNIVERSITY

A former Philadelphia Eagles offensive guard, Edward H. Blaine, captured the first place award for research at the Student American Medical Association Research Forum at the University of Texas Medical Branch in Galveston on April 23-25.

Blaine, who is working toward his Ph.D. in Physiology at the University of Missouri-Columbia School of Medicine, received $350 and a plaque for his paper titled "Renin Release from the Denervated Dog Kidney Without Sodium Delivery to the Macula Densa."

The 30-year-old former professional athlete has been a member of a research team under Dr. James O. Davis in the Physiology Department at the University Since June, 1967, when he retired from the Philadelphia Eagles. An M.U. All-American tackle in his senior year, 1961, he was drafted by the Green Bay Packers. After his rookie year with Green Bay, he was traded to Philadelphia. During the off-seasons, for five years, Blaine returned to the University of Missouri and in 1967 earned his Masters in Zoology. When he receives his Ph.D. this month, Blaine hopes to go into teaching and continue his research.

Three other students from the School of Medicine also presented scientific papers at the SAMA Research Forum describing research each has conducted while attending the school.

C. Kent Osborne, a second-year medical student, presented a paper titled "Effects of Hyperoxia on the WBC of Normal Rats." James A. Goeken, a third-year medical student, made a presentation about "Some Chemical and Histological Characteristics of Diabetes Mellitus in Mystromys Albicaudatus." Richard S. Abrams, a second-year medical student, discussed his studies of the "Measurement of Autonomic Activity in Coronary Care Unit Patients."

A fifth student, Thomas P. Dresser, a graduate student in physiology, recently returned from the Midwest-Regional Forum for Medical Student Research at the University of Michigan in Ann Arbor, Mich., where he presented his work on the "Effect of Acute Increases in Blood Pressure on Intratubular Pressure and Fractional Reabsorption in the Proximal Tubule of Dogs."

Howard Carl Hopps, recognized internationally in geo-pathology, is the first Curator Professor appointment to the University of Missouri-Columbia.

His appointment as Curator Professor of Pathology has been approved by the Board of Curators, effective Sept. 1, 1970.

Dr. Hopps currently is chief of the division of geographic pathology at the Armed Forces Institute of Pathology in Washington, a position he has held since 1964.

His primary interest is in population diseases that vary from one geographic area, from one cultural area, to another. He is considered "Mr. Geographic Pathology" on a worldwide basis for his activities on diseases, why they occur in one area and not in another. He has perfected a computerized system of recognition of geographic diseases and is widely published in his field. His activities have drawn together scientists in fields of medicine, geography, geology, chemistry and sociology to a multidisciplinary approach to the subject. Dr. Hopps directed a symposium for the American Association for the Advancement of Science last year and is cochairman of the National Academy of Science committee on geo-chemistry and health and diseases.

His addition to the pathology faculty in the School of Medicine will enhance activities of the University-wide Environmental Health Surveillance Center which operates on a statewide basis in the same field in which Dr. Hopps has been outstanding on an international basis.

ST. LOUIS UNIVERSITY

Professor Roy Yorke Calne, Chairman of the Department of Surgery, Cambridge University, Cambridge, England, was the Alpha Omega Alpha honor medical society visiting professor of surgery at the St. Louis University Hospitals and St. Louis University School of Medicine on May 1-7.

Professor Calne is an internationally-known general and vascular surgeon whose primary interests are kidney and liver transplantation. He is a pioneer in renal transplantation and was one of the first individuals to use Imuran in treating kidney graft recipients to prevent rejection. The drug has now become the universally accepted drug used in clinical transplantation of nearly all organs.

He delivered two main lectures. He gave the annual AOA-sponsored lecture entitled "Experimental and Clinical Hepatic Transplantation" on May 4 at 12 noon, Cardinal Glennon Memorial Hospital. He also lectured on "Experience with 100 Renal Transplants—the Outlook for the Future" on May 6 at the School of Medicine.

Dr. Calne conducted surgical grand rounds at the St. Louis University Hospitals, City Hospital Unit II (St. Louis University), Cardinal Glennon Memorial Hospital for Children and John Cochran VA Hospital.

He attended the annual Alpha Omega Alpha medical honor society at which 11 senior and six junior medical students have been elected to membership in Alpha Omega Alpha honor medical society.

Seniors are John C. Alexander, Joseph A. Bocchini, Jr., Robert R. Bousquet, Thomas F. Craven, Philip M. Farrell, Rocco Fiordelisi, Jerome A. Hirschfeld, Thomas G. Lutz, J. Nicholas Napoli, Ronald L. Ruecker and Thomas A. Tomsick. Juniors are John Compagno, Joseph C. Guzzo, Leonard T. Haas, Edward C. Hoppin, Thomas J. Kennedy and Larry W. Laughlin.

Dr. Robert E. Olson, professor and chairman, Edward A. Doisy Department of Biochemistry, has been awarded a John Simon Guggenheim Memorial Foundation fellowship which will provide an opportunity for him to assume an appointment as Visiting Professor in Biochemistry at the University of Freiberg.

Dr. Olson has been granted a leave of absence from St. Louis University from Sept. 1, 1970 to August, 1971. While on leave, he will conduct research on Vitamin K in Basel, Switzerland, at the Hoffman-LaRoche Company and will give a series of lectures at the University of Freiberg, where he will be associated with Professor Helmut Holzer.

Dr. Thomas F. Frawley, professor and chairman, Department of Internal Medicine, St. Louis University School of Medicine, was named Governor-elect of the American College of Physicians for Missouri at the 51st meeting of the College held in Philadelphia on April 13-17. Dr. Frawley will hold office for one year, becoming Governor in April of 1971. At that time, he will succeed Dr. Maxwell Berry of Kansas City.

Dr. V. L. Willman, professor and chairman, Department of Surgery, was scheduled to speak on "The Contributions of a University Surgical Service to Health Care" before the annual luncheon meeting of the St. Louis University Hospitals Auxiliary on May 6.

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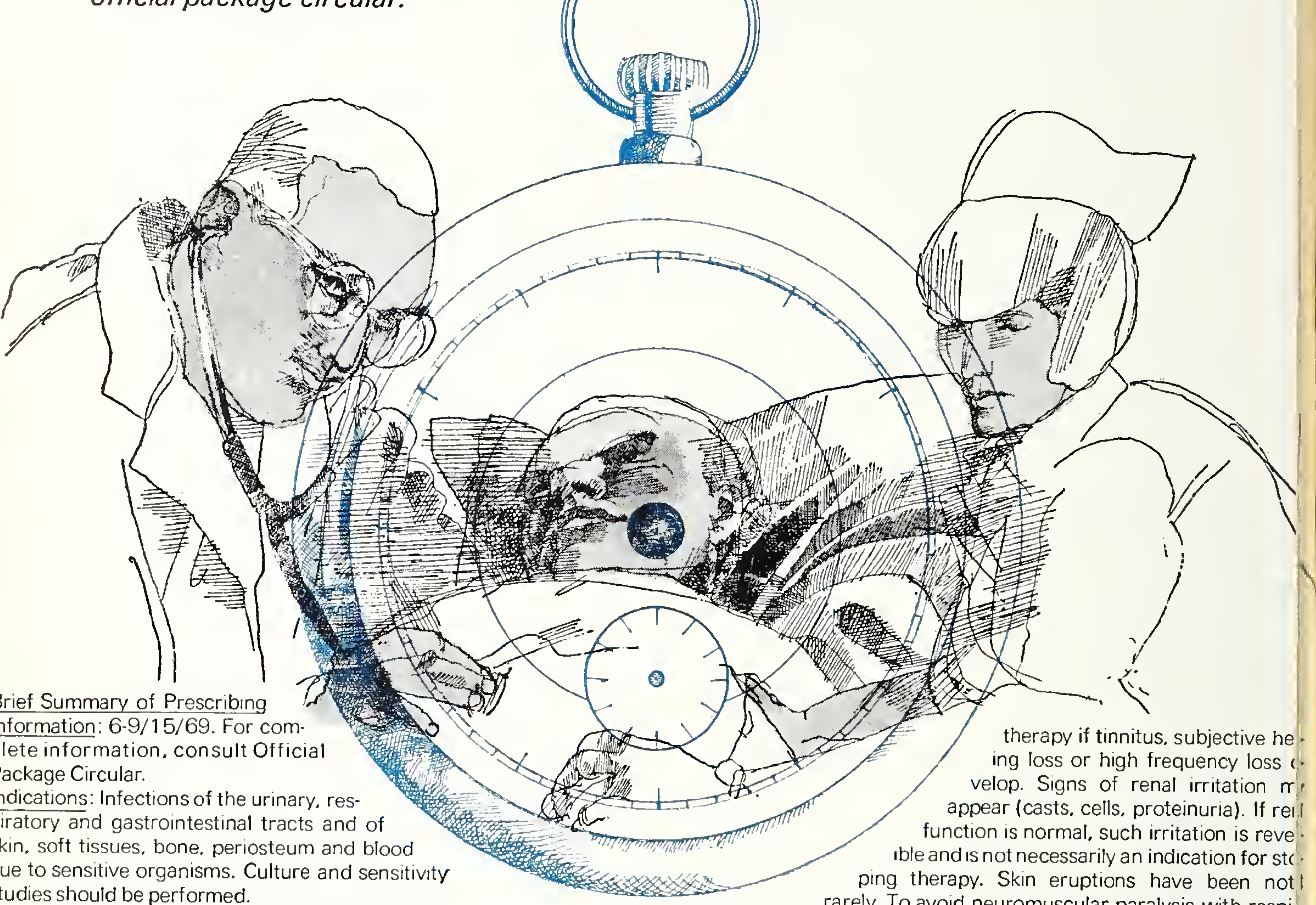

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Indications: Infections of the urinary, respiratory and gastrointestinal tracts and of skin, soft tissues, bone, periosteum and blood due to sensitive organisms. Culture and sensitivity studies should be performed.
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Warnings: Since the drug is excreted almost entirely by glomerular filtration, renal malfunction can cause abnormally high serum levels of kanamycin which may prove ototoxic. Assess renal function periodically, both before and during therapy. Renal dysfunction or pre-renal azotemia sharply increase the risk of ototoxicity and permanent deafness. In such cases decrease the size and frequency of doses. Discontinue kanamycin and check hearing if azotemia increases. In older patients and patients receiving a total dose in excess of 15 Grams, watch carefully for signs of ototoxicity.
Precautions: If mycotic or bacterial superinfection occurs, discontinue kanamycin and initiate appropriate therapy. Cumulative ototoxic effects may be produced by concurrent or consecutive use of other ototoxic drugs. High doses may cause irritation at injection sites. The drug *should not* be physically mixed with other antimicrobials.
Adverse Reactions: Severe irreversible hearing loss may occur. Stop therapy if tinnitus, subjective he- ing loss or high frequency loss c velop. Signs of renal irritation m appear (casts, cells, proteinuria). If re function is normal, such irritation is reve ible and is not necessarily an indication for st ping therapy. Skin eruptions have been not rarely. To avoid neuromuscular paralysis with respi tory depression, postpone intraperitoneal instillation in po operative patients until recovery from anesthesia and muscle relaxar is complete.
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VIEW MEDICAL SCHOOL MODEL — Three officials of the Missouri State Medical Association are shown here viewing a model of the proposed buildings at the University of Missouri Medical School at Kansas City. At the left is MSMA President Joseph L. Fisher, M.D., St. Joseph. At the right are immediate past President Doyle C. McCraw, M.D., Bolivar; and President-elect Gerald L. Miller, M.D., Kansas City.

MSMA Gets New Committees, Commissions

Among the actions of the House of Delegates of the Missouri State Medical Association during the recent 112th Annual Session in Kansas City was a complete restructuring of the organization's committee structure.

This restructuring program was initiated by a special Long Range Planning Committee of the Association and was presented to the House of Delegates by the Association's Constitution and By-Laws Committee.

Under the restructuring, the Association has six standing committees and five standing commissions. Additional committees may be appointed as needed. And sub-committees may be appointed for special tasks by the Commissions.

In cases where terms of committee and commission members run more than one year, the terms of those initially appointed will be staggered to provide that a certain number of terms expire each year.

The new committees of the MSMA including membership and duties:

The *Executive Committee* consists of the Association President, President-elect, Secretary, Treasurer, Council Chairman and Council Vice Chairman and will plan and execute such work as may be necessary for the welfare of the Association and the Executive Secretary's Office between meetings of the Council but shall be responsible at all times to the Council. The President of the Association is chairman of the Committee.

The Committee on *Constitution and By-Laws* consists of five members appointed by the President for three-year terms and has the duty of proposing amendments to the Constitution and By-Laws and presenting them to the House of Delegates.

The *Publications Committee* includes five members who are appointed annually by the Council and are responsible for general publication and distribution policies of the Journal. The Editor of MISSOURI MEDICINE, who is also named by the Council, is chairman of the Publications Committee.

The Committee on *Legislative Affairs* includes five members of the Association appointed annually by the President with the duties of considering legislative proposals affecting health problems of the people of the state and the practice of medicine and make recommendations to the Council and House of Delegates as well as directing staff activities in such matters.

The *Planning Committee* consists of ten members to be appointed to five-year terms by the President. In making such appointments, the President is to be governed by the experience of the member, the size of his medical society, his geographical area and his age. Age of the members is to be considered to the end that one-third to one-half of the committee shall be of an age group that should contemplate ten to twenty years more of active practice. The Committee is to study and make recommendations to the Council and the House of Delegates concerning long-range objectives of the Association and the resources, programs and organization structure by which the Association attempts to reach these objectives. Also, the committee will serve as a focal point for the planning activities of the Association and stimulate and co-

(Continued on Back of Page)

MSMA
News

RESTRUCTURING (Cont.)

ordinate planning activities throughout the organization.

The Committee on *Voluntary Health Agencies* consists of five members of the Association appointed by the President for three-year terms. The Committee will provide close liaison and work with all voluntary health organizations.

Commissions of MSMA are:

The Commission on *Public Affairs* will include 15 members serving three-year terms and is to plan and execute programs designed to enhance the relationship between the public and medical profession. The Commission also has responsibility in the fields of industrial health, environmental health, medicine and religion, trauma, disaster medical care and national defense and other public matters.

The Commission on *Medical Economics, Third Party Medicine and Governmental Relations* will include 15 members appointed for three-year terms by the President and will keep close liaison and work with peer and utilization review mechanisms, insurance intermediaries and governmental agencies.

The Commission on *Continuing Education and Health Manpower* will include 15 members appointed for three-year terms by the President and will determine the character and scope of the scientific proceedings of MSMA for annual sessions as well as to make arrangements for the Annual Session subject to instructions of the House of Delegates. Also, the Commission will be responsible for the continuing education program of the Association, will handle matters pertaining to hospitals, will carry on all programs in health manpower recruitment and will be responsible for programs in the rural health field.

The Commission on *Medical Legal Affairs* will include fifteen members appointed by the President for three-year terms and will investigate and study medical-legal matters affecting the practice of medicine, will make recommendations to the Council and House of Delegates and make certain that all Association members are kept informed of important developments in this field. The Commission may work with similar groups formed by the State Bar Association on matters of joint interest and concern as well as with governmental and insurance agencies in this field.

The Commission on *Interspecialty Medicine* will be composed of one representative of each statewide specialty group as recognized by the Association Council. The MSMA President will appoint annually to the Commission a representative from each of the authorized groups as submitted to him by the specialty organization. If such a nominee is not submitted to him, the President may designate a member of that specialty to serve. The Commission is charged with the responsibility of reviewing organization problems with respect to scientific programs, socio-economic and legislative matters that affect their particular specialties. In addition, the Commission will have the responsibility for programs and activities in fields relating to disease and health services involving the citizens of our state and such other matters as the Council shall direct. The Commission will also provide close liaison between the various specialty organizations and the Missouri State Medical Association.

LEGISLATIVE REPORT

Several measures of interest to medicine are being considered by the Missouri General Assembly meeting in special session in Jefferson City. The 60-day special session is to conclude in mid-June.

Hopes were high for the University of Missouri-Kansas City Medical School after the House of Representatives voted to appropriate a total of $4,026,000 for the state's share of school construction funds.

Fate of the measure now rests with the Missouri Senate and possibly later with Governor Warren E. Hearnes in case a deficit budget is approved by the Legislature.

The National Advisory Council on Education for the Health Professions has recommended $8,856,643 in federal aid for the Kansas City medical school and $9,988,000 for the hospital. The recommendation for the school was the full amount requested by the University of Missouri. The recommendation on the hospital was about $3 million less than requested.

Jackson County citizens have already voted $13 million in bonds to supply their share of the hospital construction funds.

Another bill of interest to Missouri physicians would correct the current technical problems in the drunken driver test law which in some instances is not being enforced in Missouri.

The bill provides for the measuring of alcohol in the blood to be based on milligrams per 100 milliliter.

An attempt was made by the Missouri Safety Council at a House hearing to change the definition of drunkness from the present .15 milligrams of alcohol per 100 milliliter of blood. to .10 milligrams of alcohol per 100 milliliter of blood. This move was supported by witnesses of the Missouri State Medical Association but failed to win committee approval.

The bill has been approved by the House and awaited a Senate Committee Hearing at mid-May.

Another bill calls for the licensing of nursing home administrators under their own board. This legislation was made necessary by a new Federal Regulation which requires such licensing for participation under Medicaid. This bill awaited House action at mid-May after committee approval.

A lengthy model drug abuse bill was rewritten and shortened by a House Committee and changed from a tough enforcement measure to one which calls for cooperative action in training and education programs aimed at controlling dangerous substances. It also changes penalties for violation of drug laws.

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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ROBERT J. STANLEY, M.D., DOMINIC S. FRANCISCO, M.D. *and*
LAWRENCE A. PILLA, M.D., *St. Louis*

Radiotherapy in the Treatment of Bladder Cancer

A Preliminary Report

During the years 1963 to October, 1968, 74 patients were treated for cancer of the urinary bladder in the Radiotherapy Department of St. Mary's Hospital. Thirty-nine have been followed for at least three years and 16 have been followed for five years. These patients form the basis for this report.

Of 74 patients, 55 were men and 19 were women, a ratio of approximately three to one. Age range was from 50 to 92 years with an average of 68.5 years. While many of the patients treated had concurrent illnesses, including arteriosclerotic heart disease, diabetes mellitus, hypertension and chronic lung disease, no attempt was made to statistically evaluate the actual cause of death, since many who died were not examined postmortem.

It was evident from hospital records that a large percentage of the 42 patients who died within one year of treatment did not die of the local or distant complications of bladder cancer. Nevertheless, only crude survival figures will be reported. Kurohara *et al*,[1] in an "in-depth analysis" of five-year bladder cancer survival, found that approximately 22% of the patients in their series died due to other causes, whether cancer was still present or not, while 48.5% died primarily due to cancer. Roughly comparable figures would probably pertain here.

Histology and Staging

As expected, the majority of tumors (84%) were of transitional cell origin. Tumors of squamous cell origin comprised 9.5% of the series (Table 1).

Of the three frequently used methods of classification of bladder cancer, viz, International

This preliminary report of the experience at St. Mary's Hospital is based upon 74 patients who were treated for cancer of the urinary bladder in the Radiotherapy Department during a five-year period. The authors conclude that a cure should be sought and can be achieved in approximately one fourth of the patients. Drs. Stanley and Francisco are Residents in Radiology, St. Louis City Hospital. Dr. Pilla is Director, Department of Radiotherapy, St. Mary's Hospital and Assistant Clinical Professor of Radiology, St. Louis University School of Medicine.

TABLE 1

THE DISTRIBUTION OF PATIENTS ACCORDING TO HISTOLOGIC TYPE

Histology	*No. of Patients*	*Percent of Total*
Transitional cell	62	84
Squamous cell	7	9.5
Undifferentiated	3	4.0
Unknown*	2	2.5
	—	
Total	74	

* Simply listed as Invasive Bladder Tumor.

Union against Cancer,[2] Jewett & Strong[3] (and Marshall's modification[4]) and Rubin and Buran's "group" system,[5] the first is employed here. Because St. Mary's Hospital is a referral center for radiotherapy, many of the patients have had their original microscopic descriptions and pathologic diagnoses made elsewhere. Although the various pathologists' reports differed in terminology and in the use of Broder's grading, sufficient uniformity was found in the description of the depth of infiltration of the bladder wall to warrant staging according to the International Union system. Table 2 compares the International Union system to the Jewett-Strong classification. Table 3 shows the distribution of patients according to stage. As expected, the majority of the radiotherapy patients (74.3%) are seen to fall into the T-3 and T-4 categories.

TABLE 2

A COMPARISON OF TWO CURRENT CLASSIFICATIONS OF BLADDER CANCER

International Union Against Cancer	*Jewett and Strong*	
T1s	Stage O	Carcinoma in Situ
T1	Stage A	Tumor with infiltration into subepithelial tissue
T2	Stage B1	Tumor with infiltration into superficial muscle
T3	Stage B2	Tumor with infiltration into deep muscle
	Stage C	Tumor infiltration into perivesical fat
T4	Stage D	Tumor with infiltration into adjacent organs
N	Stage D1	Tumor with lymph node invasion below bifurcation of iliac arteries
M	Stage D2	Tumor with lymph node invasion in periarotic region (Also M designates distant visceral metastases)

TABLE 3

THE PERCENT DISTRIBUTION OF PATIENTS ACCORDING TO STAGE

Stage	*No. of Patients*	*Percent of Total*
T1	8	10.8
T2	11	14.9
T3	28	37.8
T4	27	36.5
	—	—
	74	100

Treatment Methods

All patients were treated with Cobalt 60 teletherapy. A variety of pretreatment surgical procedures, including transurethral resections, partial and complete cystectomy, urine diversion without removal of bladder and simple biopsy had been employed. Several patients received preoperative treatment prior to cystectomy. However, none of the subgroups were sufficiently large to allow for separate statistical evaluation.

The ports were arranged to incorporate the entire urinary bladder, including the posterior urethra in the beam as well as the entire true pelvis when indicated. Most patients were treated with anterior and posterior parallel opposed ports supplemented by both anterior and posterior oblique ports. More recently, one anterior and two posterior oblique ports have been used. This arrangement has been shown to have a rectum sparing isodose curve and will be employed regularly in the future. Table 4 lists the distribution of patients according to total tumor dose in rads. Several patients in the lower dose groups had their course of treatment terminated prematurely due to worsening general condition. Patients treated solely for palliation also fall into the lower dose groups.

TABLE 4

THE DISTRIBUTION OF PATIENTS ACCORDING TO THE RANGE OF DOSAGE USED

Dose in Rads	*No. of Patients*	*Percent of Total*
Less than 3,000	2	2.5
3,000-4,000	7	9.5
4,000-5,000	16	21.6
5,000-6,000	27	36.5
Greater than 6,000	22	29.9
	—	—
	74	100

TABLE 5

THE ONE-, THREE- AND FIVE-YEAR SURVIVAL AND CONTROL DISTRIBUTION

Stage	*No. of Patients*	*Alive* 1 yr.	3 yr.	5 yr.	*Controlled (Free of Cancer)* 1 yr.	3 yr.	5 yr.
T1	8	5/8	0/1	0/1	3/8	0/1	0/1
T2	11	8/11	5/6	1/1	6/11	4/6	1/1
T3	28	14/28	8/15	1/4	8/28	7/15	1/4
T4	27	5/27	2/17	0/10	2/27	1/17	0/10
Totals	74	32/74 (43.5%)	15/39 (38.5%)	2/16 (12.5%)	19/74 (25.7%)	12/39 (31%)	2/16 (12.5%)

Survival and Control

Of the 74 patients followed more than one year, 32 (43.5%) survived more than one year and 19 (25.7%) are presently found to be free of cancer. Thirty-nine patients have been followed more than three years, of whom 15 (38.5%) survived and 12 (31%) are presently alive and well. In view of the findings of Crigler *et al*[6] who state that 95% of the local failures will be recognized within three years, the figure of 31% can be reasonably considered a current three-year cure rate. However, this figure will approach 20% when the present one year survival values are projected.

Only 16 patients have been followed more than five years. Two survived and are presently alive and well. Table 5 shows the breakdown of one-, three- and five-year survival statistics according to tumor staging.

Summary

Of 74 patients treated with Cobalt 60 radiotherapy for cancer of the urinary bladder during the years 1963 to 1968, 43.5% have survived more than one year postradiotherapy, 38.5% more than three years and 12.5% more than five years. For the radiotherapist, bladder cancer is primarily a disease of the aged with male predomination. Serious concurrent diseases present frequent problems in management and occasionally adversely affect the patient's ability to tolerate therapy. Nevertheless, high doses in the range of 5,000-6,500 rads usually can be achieved. The extent of tumor invasion in patients who are referred for radiotherapy is considerable; three fourths of the patients in this series were in the stage T3 and T4 categories. In spite of this, a cure should be sought and can be achieved in about one fourth of patients.

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The Kansas City Southwest Clinical Society has announced that its Annual Fall Clinical Conference will be held on October 22-24 at 3036 Gillham Road in Kansas City. Further information may be obtained by contacting Miss Alta L. Bingham, Executive Secretary, at this address.

W. F. KEITZER, M.D., E. LICHTI, Ph.D. ***and***
M. S. DEWEESE, M.D., ***Columbia***

Use of the Ultrasonic Flowmeter (Doppler) During Vascular Reconstruction

The Doppler has been used in the diagnosis and follow up of patients with peripheral vascular occlusive disease. The authors present the additional use of the Doppler as a monitor of revascularization procedures in the operating room with a gas-sterilized probe. They believe that the use of this instrument is valuable to the surgeon who is called upon to make a decision regarding the patency of a vessel atraumatically. The authors are from the University of Missouri-Columbia School of Medicine where Dr. Keitzer is an Associate Professor of Surgery, Dr. Lichti is an Instructor in Surgery; and Dr. DeWeese is Professor and Chairman of the Department of Surgery.

In 1965, Strandness and Bell[1] described a technique for the evaluation of peripheral vascular disease using the mercury strain gauge. Mercury strain gauge plethysmography provides the physician with an objective evaluation of the peripheral vascular system and allows the surgeon to monitor a patient during and after a vascular reconstruction procedure. The use of the mercury strain gauge for the diagnosis and follow up of peripheral vascular occlusive disease has been well established in the preoperative and postoperative periods. The use of the mercury strain gauge during operative procedure, however, has several limitations.

Indication of flow by the digital strain gauge is a function of an intact digital flow. In low flow states, as found in hypovolemia with vasoconstriction in the microcirculation or occlusive disease of the small blood vessels, there may be little or no volume pulse in the digit to provide a signal by the strain gauge.

In 1961, Franklin, Schlegel and Rushmer[2] described an ultrasonic flowmeter, which utilized the Doppler effect, as a tool for the determination of bloodflow in animals. Watson and Rushmer[3] later demonstrated the feasibility of determining intravascular pulsatile velocity transcutaneously with an ultrasonic flowmeter.

The term, Doppler, as used in this paper refers to the Model 802 Doppler which is available from Parks Electronics Laboratory, Beaverton, Ore.

The Doppler itself is a self-contained, battery-operated unit which is relatively inexpensive. It is not traumatic in use and is readily accepted by the patient (Fig. 1). The sound of the velocity wave caused by the Doppler shift is analogous to the sounds heard with stethoscope and requires some experience to interpret. Once the physician is familiar with the types and qualities of sounds heard, he will be able to determine if flow through a given vessel is normal or by means of collateral vessels. He will be able to distinguish the sound pattern of a distal occlusion (water hammer effect with reduced background flow) and the change in flow sounds caused by a proximal stenosis.

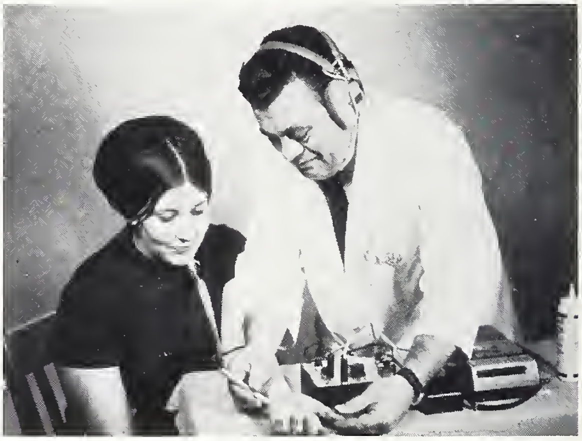

Fig. 1 Demonstration of Doppler usage to detect ulnar artery flow.

Fig. 2 shows the mapping out of vasculature in an arm which suffered a brachial artery occlusion following cardiac catheterization. Arteriography was not performed prior to the vascular reconstruction for fear of further compromising the

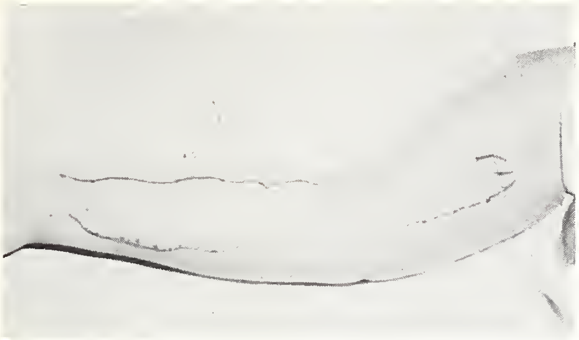

Fig. 2 The outline of collateral vessels (by Doppler) in a case of brachial artery occlusion.

flow to the arm and hand. Operative arteriography, during the reconstruction procedure, verified the information presented by Doppler examination.

The ability of the surgeon to determine the patency of vascular reconstruction before the patient is taken to the recovery room has, in our experience, shortened the duration of the operation and reduced the incidence of postoperative occlusion. To enable the surgeon to meaningfully evaluate the reconstruction, we use the Doppler with a gas-sterilized probe which can be used in the surgical field and allows direct examination of the exposed arteries without trauma. Operative examination of the vessels to be reconstructed using the sterile probe and sterile lubricating gel (to conduct the ultrasound) aid in the delineation of the reconstruction. Examination at the finish of the reconstruction verifies the patency of the arterial system.

The value of the Doppler in reconstructive vascular surgery is based on the interpretation of sounds. Each vessel is checked for qualitative indication of patency which is heard as a pulsatile sound with a continuous flow sound in the background. If a hard hammering pulse is noted without the continual sound of runoff in the background, it is indicative of a distal occlusion; and if a reduced flow is noted with a change in the normal pulsatile component, it may well be indicative of a proximal stenosis or partial occlusion. When a bilateral reconstructive procedure is performed, the surgeon will qualitatively compare one side with the other. Arteriography is still a necessary item in the verification of arterial disease, but its use in the operating room is not without risk to the patency of the vasculature involved in the arteriographic procedure. The Doppler, in usage, presents no risk to the vascular patency.

Figs. 3, 4, 5, 6, 7 & 8 are indicative of the operative use of the Doppler. Each of the cases presented were originally worked up with the Doppler and confirmed by arteriography when possible. Fig. 3 shows the use of the Doppler to objectively establish the patency of a superficial femoral artery following an embolectomy. This case was originally worked up by Doppler and followed postoperatively with the instrument. Fig. 4 demonstrates the use of the instrument to verify flow after an end-to-end anastomosis of a transected axillary artery. Fig. 5 shows the use of the Doppler in the final phase of an aortofemoral bypass. The instrument was used during

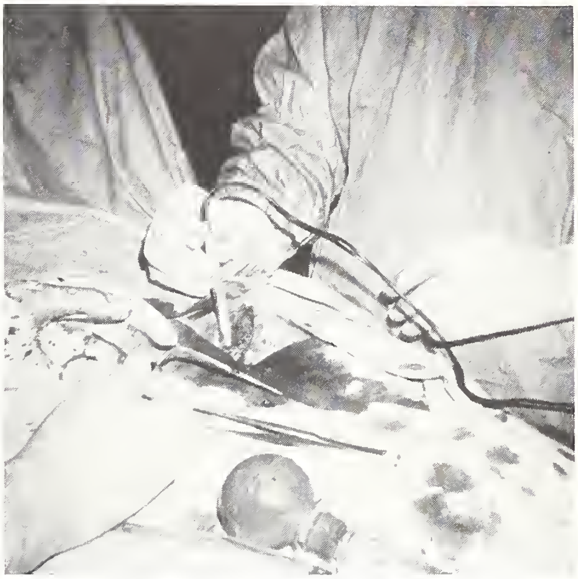

Fig. 3 Use of the Doppler after embolectomy to determine arterial flow.

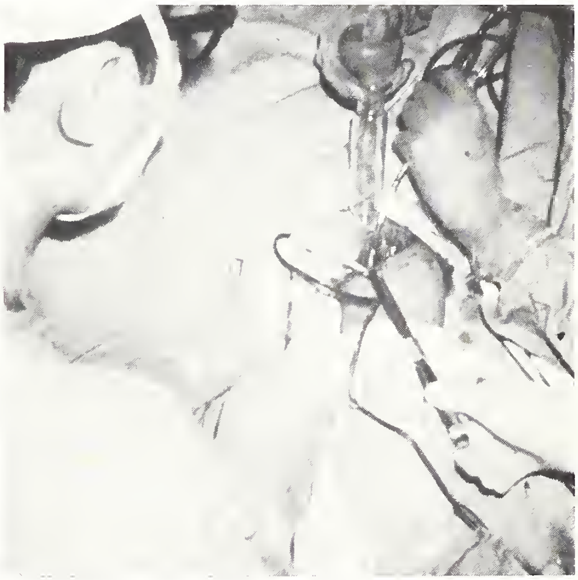

Fig. 4 Use of the Doppler after repair of transected axillary artery.

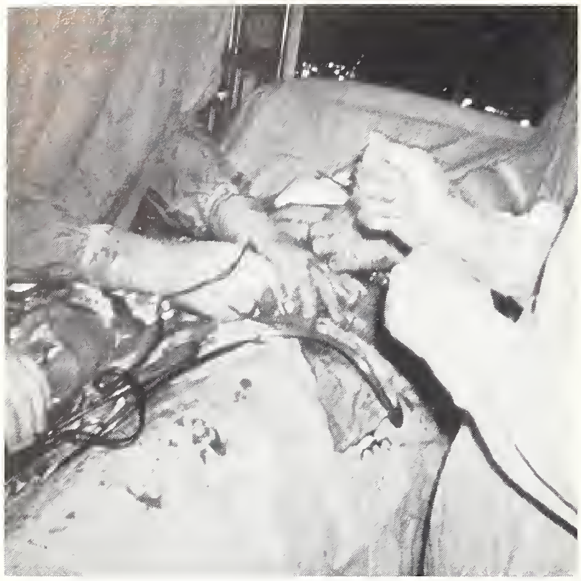

Fig. 5 Evaluation of flow following an aortofemoral bypass procedure.

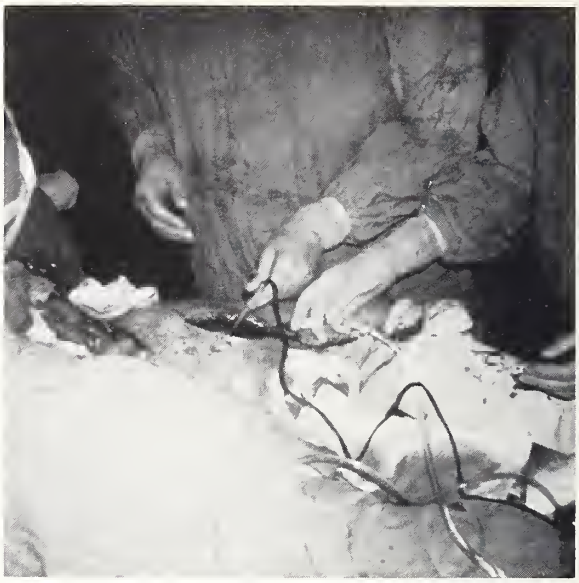

Fig. 6 Determination of patency following a femoral popliteal bypass.

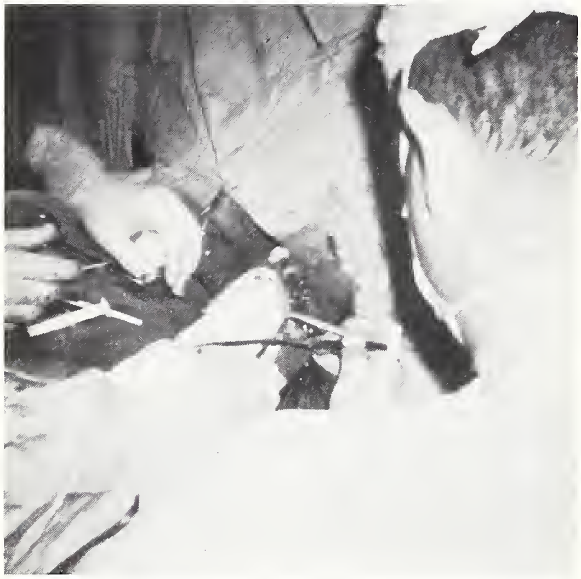

Fig. 7 Verification of arterial flow following repair of transected brachial artery.

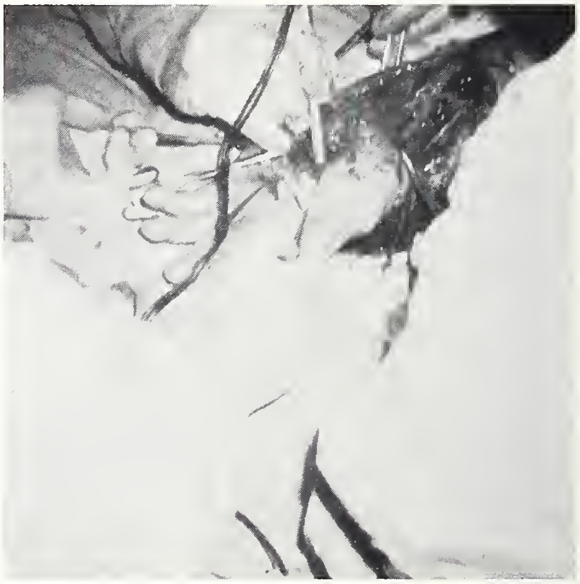

Fig. 8 Determination of flow in deep palmar arch during operative procedure for repair of damage caused by discharge of shotgun.

the procedure to evaluate flow in the internal iliacs, femoral profunda and other vessels. It was used postoperatively to evaluate the success of the procedure. Fig. 6 is the final phase before closure in a femoral popliteal bypass. Again, the Doppler was used extensively throughout the procedure and in the postoperative period. Fig. 7 is the verification of flow after repair of a transected brachial artery.

Fig. 8 shows the use of the Doppler to determine flow in the deep palmar arch of a hand which, along with the forearm, had been severely traumatized by the accidental discharge of a 12-gauge shotgun. The force of the discharge removed the radial artery and the radius from the forearm. The ulnar artery was not palpable and amputation was imminent. Demonstration of patency and flow in the vessels of the hand by insertion of a sterile probe into the hand wound brought about postponement of amputation. Subsequent orthopedic reconstruction has produced a hand and arm with function.

Discussion and Summary

The Doppler has been used by others in the diagnosis and follow up of persons with peripheral vascular occlusive disease. We have presented an additional use of the Doppler which we feel is quite helpful to the surgeon. That usage is the monitoring of revascularization procedures in the operating room with a gas-sterilized probe. The use of this instrument provides the surgeon with an instantaneous, audibly dynamic portrayal of the vasculature enabling him to better judge the patency of the vessels which are involved in the procedure.

We have used the Doppler in the operating room for surgical procedures other than vascular reconstruction. It has been used during open heart procedures to determine the flow of micro gas emboli and to delineate, at operation, congenital arteriovenous malformations.[4, 5] It also has been used in surgery to ascertain the patency of vessels where severe injury has occurred. We have used the instrument to monitor cardiac resuscitation efforts and to detect blood pressure (indirect monitoring) when it was too low to be evaluated by normal means. We feel that the use of the Doppler is valuable to the surgeon when he is called upon to make a decision regarding the patency of a vessel atraumatically.

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UNIVERSITY OF MARYLAND

A Postgraduate Course on Bone and Joint Roentgenology for radiologists and orthopedic surgeons will be given on Sept. 14-18, 1970 at Stouffer's Riverfront Inn in St. Louis by the Mallinckrodt Institute of Radiology, Washington University School of Medicine.

Sessions will be devoted to Arthritis, Metabolic Bone Disease, Skeletal Dysplasias, Orthopedic Problems, Tumors and Tumor-Like Conditions and New Techniques. The faculty will consist, in addition to others, of Drs. William Martel, Howard Steinbach, Frederic Silverman, Victor McKusick, Fred Reynolds, H. R. McCarroll, L. V. Ackerman and Philip Rubin.

For further information, write to T. W. Staple, M.D., Course Director, Mallinckrodt Institute of Radiology, 510 S. Kingshighway Blvd., St. Louis, Mo. 63110. Course fee is $125 for practicing physicians and $75 for residents.

ALDO A. ROSSINI, M.D. *and* **JOHN J. BUDD, JR., M.D.,** ***St. Louis***

Goodpasture's Syndrome

Case Report

The recognition of acute nephritis associated with pulmonary hemorrhage dates from an observation by Osler[1] in 1895, 29 years following the initial description of glomerulonephritis by Bright.[2] Subsequently in 1919, Goodpasture[3] reported the sudden death of a 19-year-old man who had hemoptysis, anemia and albuminuria. Others recognized this association and described similar clinical courses with identical or slightly differing pathologic findings, and the syndrome of pneumonitis, pulmonary hemorrhage and nephritis is known by the eponymn of "Goodpasture's Syndrome."[4] This has been variously described as lung purpura with nephritis or hemorrhagic pulmonary renal syndrome. This report details the clinical course of a 19-year-old patient with Goodpasture's Syndrome and with confirmation of diagnosis by means of immunofluorescent kidney studies. The literature and some aspects of the mechanism and pathogenesis of this syndrome are reviewed.

Case Report

A 19-year-old white man was hospitalized at St. Louis University Hospital because of hemoptysis of eight-days duration and hematuria of three-days duration. Six days prior to this admission, he was hospitalized at another institution for the hemoptysis. He was found to be anemic and was transfused with one unit of packed red blood cells. Tetracycline and aspirin were administered for his fever on this admission with no alteration in his clinical status. He then was transferred for further evaluation.

The report presents in detail the clinical course of a 19-year-old patient with Goodpasture's Syndrome and with confirmation of diagnosis by means of immunofluorescent kidney studies. The patient fulfilled all prerequisites for the diagnosis of the Syndrome. The association with carbon compounds also is observed. The authors are from the Department of Internal Medicine at St. Louis University Group Hospitals where Dr. Rossini is a first-year Resident and Dr. Budd is Assistant Clinical Professor.

His occupation for the two years prior to admission had been spray painting automobiles with metallic ingredients. In this work, he had rarely worn a protective mask. He had noted dyspnea on two occasions prior to admission. However, he had never previously noted hemoptysis. At the age of nine, he had received and responded to corticosteroid therapy for erythema multiforme which was diagnosed by biopsy of mucous membrane lesions. Two years prior to admission, he had two grand mal seizures, which were believed to be idiopathic in origin, and was treated with diphenylhydantoin and phenobarbital. One year prior to admission, he had an episode of hematuria and had been treated with antimicrobials in the belief that this represented acute cystitis.

Physical examination. The patient's temperature was 102.3 F orally; blood pressure, 120/60 mm Hg; heart rate, 120/minute; respiratory rate 30/minute. He was in marked respiratory distress while receiving oxygen by mask. A slight decrease of breath sounds throughout both lungs and rales in the right middle lobe were found without evidence of consolidation.

On admission, the chest revealed infiltrates distributed symmetrically throughout the lower two thirds of both lung fields, without evidence of pleural fluid or cardiomegaly. The hematocrit value was 25%; hemoglobulin level, 8.2 gm/100 cc; white blood cell (WBC) count, 12,000 cu mm with 85% neutrophils, 8% lymphocytes and 7% monocytes. Red blood cells were normocytic, normochromic; basophilic stippling and many spherocytes were found on blood smear. Reticulocytes were 10% and the platelet count was 390,000 cu mm. Direct and indirect Coombs tests were negative; red blood cell (RBC) osmotic fragility was normal. Free serum hemoglobin was 8.6 mg/100 cc (normal 6 mg/100 cc). Serum iron was 36 Hμg% and total iron binding capacity 235 mg/100 cc. Stools for occult blood throughout his hospital course were negative. Mild erythroid hyperplasia was seen in the bone marrow examination. The red cell volume determined by ^{51}Cr tagged red blood cells was 12.1 cc/kg (normal = 25 cc/kg) with a normal total blood volume and increased plasma volume. The apparent survival of ^{51}Cr tagged RBC was 20 days (normal >25 days). Prothrombin activity was 45% and 73%; bleeding time, clotting time and Rumpel Leede test were normal. A renal biopsy was performed and evaluated by means of immunofluorescent techniques. Ribbon deposits in the glomerulus typical of Goodpasture's Syndrome were seen (Fig. 1).

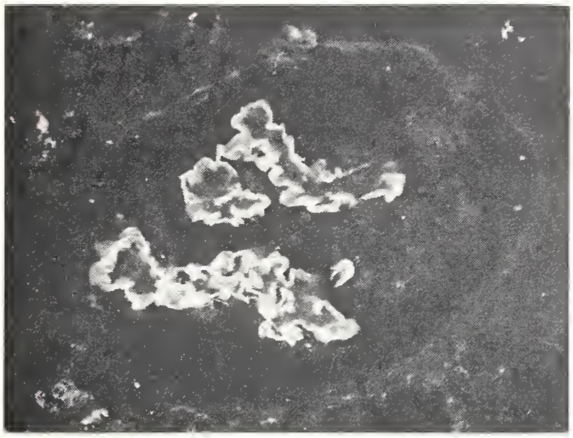


Fig. 1 Deposition of IgG in the glomerulus. Typical linear ribbon configuration on the basement membranes.

On admission, the blood urea nitrogen was 32 mg/100 cc and creatinine was 2.6 mg/100 cc. Urinalysis revealed Sp. Gr. 1.016; pH 4, negative glucose and ketones; 0-2 WBC with a field covered with RBC. Blood sugar, serum electrolytes, LDH, serum glutamic pyruvic transaminase (SGPT) and serum glutamic oxaloacelic transaminase (SGOT) were all within normal limits. Sputum, urine and blood cultures revealed no growth. Alkaline phosphatase was 3.5 Sigma units. Urinary coproporphyrins were positive on one determination; however, on subsequent determinations, coproporphyrins as well as uroporphyrins were negative. Serum lead level was 20 μmg%. Three lupus erythematosus preparations, serum rheumatoid factor, cold agglutinin titer, tuberculin and histoplasmin skin tests were negative. Protein electrophoresis showed a marked decrease in the albumin fraction. Quantitative immuno-diffusions showed: IgA, 37 mg% (normal 200 ± 61); IgG, 509 mg% (normal 1158 ± 305); IgM, 57 mg% (normal 99 ± 27); and BlC globulin, 350 mg% (normal 145 ± 22). The EKG showed nonspecific ST and T changes. Lung vital capacity was decreased to 60% of normal. Arterial gas studies revealed a pO_2 of 70 mm Hg with a normal pCO_2 and pH. Hemosiderin laden macrophages were present in three sputum smears. While hospitalized, he received three units of packed red blood cells. He was placed on prednisone therapy and improvement of the pulmonary and cardiovascular system was observed and there was stability of the renal and hematologic problems.

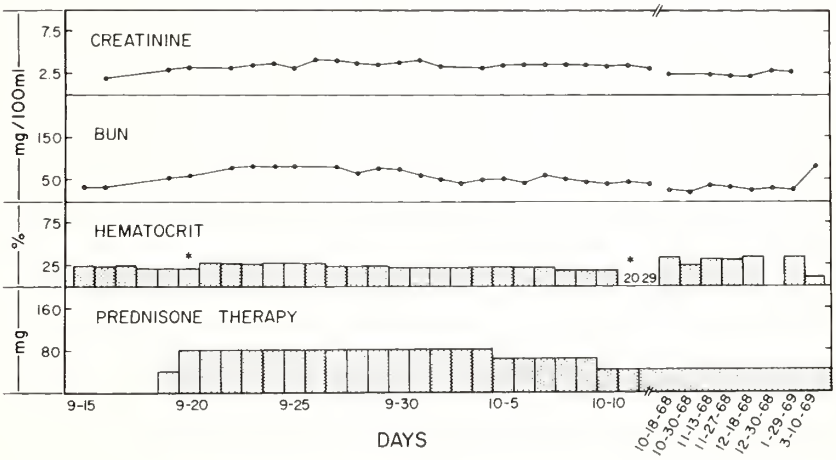
The patient was discharged from the hospital 20 days following admission. He was followed as an outpatient weekly or every other week. The pertinent laboratory data during hospitalization and treatment and subsequent visits are included in Fig. 2. Subjectively, he improved during this period and remained essentially asymptomatic during mild activity.

Five months later, he became desperately ill and was readmitted to St. Louis University Hospital with increasing shortness of breath and marked pallor. Vital signs on admission were blood pressure, 170/120 mm Hg; heart rate, 140/minute; respiratory rate, 32/minute; temperature, 99 F rectally. The patient appeared to be in marked respiratory distress and was diaphoretic. Scattered pulmonary rales with numerous expiratory rhonchi were audible. The remainder of the physical examination was essentially negative.

The blood replacement and supportive measures were unsuccessful and the patient died the day of admission.

At autopsy, there was hypertrophy of the myocardium without evidence of coronary artery involvement. The right lung weighed 1,150 gm and the left, 1,000 gm. The bronchi were filled with bloody fluid and there were lobular hemorrhages. Nodular fusiform thickening was present in the al-

Fig. 2 Pertinent laboratory data and treatment.



* Blood transfusion.

veolar septa with varying degrees of collagenization, and alveolar-lined cells and organized aggregates of intra-alveolar fibrin were evident. No vasculitis or necrotizing alveolitis was found. The right kidney weighed 180 gm and the left, 195 gm. The glomeruli contained epithelial crescents with fibrosis, endothelial proliferation with hyalinization in the tufts and dilated tubules with some acute inflammatory changes.

COMMENT

In 1964, Benoit *et al*[5] reviewed the clinical manifestations of Goodpasture's Syndrome in detail. Prerequisites for the diagnosis include (1) pulmonary hemorrhage prior to a significant azotemia; (2) a normocytic-normochromic anemia progressing to iron deficiency anemia; (3) a glomerulonephritis leading to a renal failure; and (4) an absence of arteritis. This patient has fulfilled all these criteria. The syndrome is described more frequently in white youths and the male to female ratio is 9:1. Hemoptysis, exertional dyspnea, cough, fatigue and weakness are the major symptoms, while pallor and pulmonary rales represented frequent clinical signs. The hematologic picture is highlighted by a normocytic normochromic anemia initially. Rapid destruction of red blood cells and sequestration in the lung and to a lesser degree in the spleen without a Coombs positive anemia is demonstrable. Renal failure is preceded by hematuria and proteinuria. Hemosiderin laden macrophages are found in the sputum, and bilateral hilar lung infiltrates radiating to the lower lobes are usually observed on chest roentgenography.

Classification of this disease as a separate entity or a variant of other immunological diseases has been debated for the last 15 years. Walker and Jockers[6] feel that Goodpasture's Syndrome represents a variant or an early stage of polyarteritis nodosa. The presence of fever, weight loss, neuritis, arthralgia, necrotizing arteritis and the coexistence of systemic symptoms in multiple organ systems leads to the suspicion of polyarteritis. In polyarteritis nodosa, the better prognosis and less prominent hemoptysis also helps in this differential. Rusby and Wilson[7] and Lexow and Sigstadt[8] have drawn attention to the similarities between Goodpasture's and idiopathic pulmonary hemosiderosis, concluding that they are the same disease. However, the onset in the latter is usually in early childhood with equal sex distribution, and it is rarely recognized in young adults. There is a more copious hemoptysis, minimal renal involvement and longer survival in this idiopathic pulmonary hemosiderosis, suggesting that there is a substantial difference between the two.

Other entities such as glomerulonephritis and Henoch-Schönlein purpura have similar findings. In acute glomerulonephritis, however, there is generally a preceding streptococcal infection, hypertension and edema. A good prognosis also is a hallmark. Nephritis associated with Henoch-Schönlein purpura may be differentiated only by the appearance of the skin lesions. In contrast to the foregoing, Soergel and Sommers[9] maintain that Goodpasture's Syndrome is a separate entity with specific histologic changes.

Since the advent of the immuno-fluorescent staining procedure, greater insight to the pathogenesis of Goodpasture's Syndrome has been possible. There is a distinct pattern of deposition of immunoglobulin in the glomerulus in Goodpasture's Syndrome, and a common antibody which affects both alveolar and glomerular basement membranes has been the pathogenetic factor proposed in this disease. Beirne *et al*[10] have shown linear deposition of immunoglobin (IgG) and beta 1c-globulin along the basement membrane of both the alveolar septae and capillaries and in the glomeruli. Staining with fluoro-labeled goat antihuman gamma globulin demonstrates the typical, smooth, ribbon-like deposition of the globulin in the glomerular loop as in our patient (Fig. 1). This provides evidence for an immune pathogenesis due to the common alveolar basement membrane antibody.

The postulated antigenic stimulus which causes this hypersensitivity reaction has not yet been discovered. Originally, an infectious origin was suggested by Goodpasture[3] and a virus-like material in the kidney has been noted by some,[11] but not by others.[5] In individual case reports, bacterial etiology[12] and penicillin[13] sensitivity also have been implicated. Sprecace[14] has noted that in many of his patients, there was a close association with gasoline or its combustion products and proposes that this may be significant in the etiology. No conclusions can be made as to the antigen, but the association with the use of the carbon compounds is of interest. Corticosteroids have resulted in only occasional transient benefit changing only the mode of death from pulmonary to renal.

The disease has been uniformly fatal. In Benoit's[5] series, patients not given corticosteroid therapy lived a median of 15 weeks. Death was the result of pulmonary complications. In patients treated with steroids, regardless of the stage of the disease, renal complications became prominent. The median survival in these patients was 24 weeks. Freeman *et al*[15] collected a series up to and including 1966 and found only 16 cases in which a survival greater than 18 months was recorded. The longest survival was six years in a patient who was placed on corticosteroids prior to severe renal pathology. A rare case revealed a reversal of renal impairment in a young woman on whom no corticosteroid therapy was initiated. Azothioprine[16] and hemodialysis[15] and estrogens[5] have been used without altering the prognosis. Cleveland[17] transplanted a cadaver kidney into a patient with Goodpasture's Syndrome who had bilateral nephrectomy. The patient was reported as doing well 16 months following the surgery. Maddock[18] suggests that unresponsiveness to corticosteroids should indicate bilateral nephrectomy with the use of either chronic hemodialysis or a renal transplantation. This regimen should be considered early in the course of the disease in view of its fatal fulminating course.

Summary

The case report of a 19-year-old man with the diagnosis of Goodpasture's Syndrome is presented. The clinical diagnosis was supported by kidney biopsy and immunofluorescent staining procedure. A review of the literature reveals similar signs, symptoms and prognosis as had been reported previously. The association with carbon compounds also is observed. The possible amelioration of the fatal outcome of this disease, though on corticosteroid therapy, might encourage early diagnosis and possible use of nephrectomy.

Acknowledgement: The authors wish to express appreciation to Dr. Fred Germuth, Chief of Pathology at St. Johns Mercy Hospital, for providing the service of the immuno-fluorescent staining procedure on the kidney biopsy.

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The St. Louis Academy of General Practice presented a Spring Scientific Symposium on Diabetes and other topics of current interest on May 3 at Stouffer's Riverfront Inn in St. Louis. Co-sponsors of the Symposium were the St. Louis Diabetes Association, St. Louis Medical Society and St. Louis County Medical Society.

Robert G. Hughes, M.D., President of the Academy welcomed those who attended. Preston C. Hall, M.D., served as moderator. Among the principal speakers were Henry E. Oppenheimer, M.D. and Cesar A. Gomez, M.D., St. Louis University School of Medicine; Marvin Levin, M.D. and Glen Johnston, M.D., Washington University School of Medicine; Hanford Phillips, M.D., St. Louis; George E. Ehrlich, M.D., Albert Einstein Medical Center, Philadelphia; and Morten Andelman, M.D., author and lecturer, Chicago.

Mr. Willis E. Stone, national chairman of the Liberty Amendment Committee of the U.S.A., was guest speaker at the dinner.

HUMBERTO ALARCON, M.D., ***Pittsburgh, Pa. and***
RICHARD H. FALLON, M.D., ***St. Louis***

Cancer of the Thyroid

A Review

Cancer of the thyroid is a relatively rare disease with a death rate of approximately one per 100,000[1] and with a great variability in survival time dependent mainly on the type of cancer. The longest survival rate occurs in papillary carcinoma and the shortest survival is in the undifferentiated type.[1–8]

This article reviews the incidence of cancer in the patients who underwent operation on the thyroid gland during 1948 to 1968 at the Missouri Pacific Employes' Hospital Association in St. Louis, Mo. The results of this study will be compared with those reported by other investigators.

Methods and Results

From 1948 through 1968, 518 operations on the thyroid gland were carried out in our hospital. Twenty-one of these cases presented malignant changes in the thyroid gland, giving a cancer incidence of 4.05% in the surgical specimens. The histories of these cases were reviewed and all the available information was obtained and tabulated. The cases were numbered according to the date of the operative procedure. Cancer of the thyroid occurred in seven white men and 14 white women; their ages ranged between 19 and 78 years (Table 1). The survival cases were followed in our tumor clinic.

The authors review the incidence of cancer in 518 patients who underwent operation on the thyroid gland during 1948 to 1968 at the Missouri Pacific Employes' Hospital Association in St. Louis and compare the results of their study with those reported by other investigators. Dr. Alarcon was Chief Surgical Resident at the Hospital at the time this paper was written. He now is Thoracic and Cardiovascular Surgical Resident at St. Francis General Hospital, Pittsburgh, Pa. Dr. Fallon is Visiting General Surgeon at the Missouri Pacific Employes' Hospital Association.

TABLE 1

TWENTY-ONE CASES OF THYROID CANCER DISTRIBUTED BY AGE GROUP OF PATIENTS

Age Group	*No of Cases*
19-28	3
29-38	2
39-48	4
49-58	4
59-68	5
69-78	3
Total	21

The most frequent cancer was papillary adenocarcinoma (nine cases) followed by malignant lymphoma (four cases). The list of numbers of various types is given in Table 2.

TABLE 2

TWENTY-ONE CASES OF THYROID CANCER SURGICALLY TREATED DURING 1948-1968 AT MISSOURI PACIFIC EMPLOYES' HOSPITAL ASSOCIATION, ST. LOUIS, MO.

Type of Cancer	*No of Cases*
Papillary adenocarcinoma	9
Follicular adenocarcinoma	2
Mixed papillary and follicular adenocarcinoma	2
Huerthle cell carcinoma	1
Spindle cell carcinoma	2
Undifferentiated carcinoma	1
Malignant lymphoma	4
Total	21

The most frequent symptomatology was a mass in the neck, which occurred in 90% of our patients. The next most frequent symptom was dysphagia (Table 3).

TABLE 3

SYMPTOMATOLOGY IN 21 CASES OF THYROID CANCER

Symptomatology	%
Mass in neck	90
Dysphagia	52
Nervousness	38
Weight loss	33
Hoarseness	23
Dyspnea	19
Anorexia and weakness	19

Coronary artery disease was the most frequent preexisting disease (Table 4) and was consistent with age of the patients.

TABLE 4

ASSOCIATED MEDICAL DISEASES

Case No	*Age*	*Disease*
9	63	Pulmonary tuberculosis 20 years ago
14	38	Mitral stenosis
16	74	Old myocardial infarction
19	69	Coronary artery disease
20	78	Coronary artery disease and cerebrovascular insufficiency
21	44	Coronary artery disease

In seven cases, there was a positive history of cancer in the immediate relatives of the patients (Table 5), but no known thyroid cancer.

TABLE 5

FAMILY HISTORY OF CANCER

Case No	*Type of Cancer*
3	Sister died of hepatic cancer.
5	Uncle had operation for "cancer of the throat." Aunt died of "carcinomatosis." Another aunt died after breast cancer operation.
6	Father died of gastric cancer. Sister has gastric cancer.
10	Mother died of hepatic cancer.
11	Father and one sister have "cancer."
12	Mother has cancer of uterus. A first cousin died of lung cancer.
16	Brother died of gastric cancer. One child died of leukemia.

The most frequent physical finding on admission was a diffuse enlargement of the thyroid gland which occurred in 38% of the patients. The next most frequent positive finding was a single nodule in 29% of the patients (Table 6).

TABLE 6

PHYSICAL FINDINGS ON ADMISSION OF 21 PATIENTS WITH THYROID CANCER

Physical Findings	%
Diffuse thyroid enlargement	38
Single nodule	29
Multiple nodules	19
Cervical node without thyroid enlargement	14

Exophthalmos was not present in any of our patients. Laryngoscopic examination did not reveal abnormalities in any of the 16 patients who were examined.

The laboratory data revealed slight anemia in only three patients; the white blood count was slightly elevated in two patients. The basal metabolism rate ranged from −21 to +32 with an approximate average of +10.

In one case, the thyro-binding index was in the hyperthyroid range. The cholesterol levels that were determined in nine patients were normal.

The chest x-ray showed a soft tissue mass on the anterior superior portion of the trachea (Case #4), increased width of the superior part of the mediastinum with tracheal displacement toward the right and posterior (Cases #16 and #19). The x-rays of the remaining patients were not of diagnostic value.

The surgical procedures and postoperative complications are shown in Tables 7 and 8, respectively. Only one case required emergency tracheostomy on the first postoperative day for dyspnea and cyanosis (Case #20).

TABLE 7

SURGICAL PROCEDURES IN 21 CASES OF THYROID CANCER

Operative Procedure	*No of Cases*
Total thyroidectomy	6
With unilateral neck dissection	1
With bilateral neck dissection	1
Subtotal thyroidectomy	6
With unilateral neck dissection	1
Lobectomy	1
With unilateral neck dissection	1
Local excision of thyroid tumor	2
Biopsy of neck lymph node alone	2
Total	21

TABLE 8

POSTOPERATIVE COMPLICATIONS

Case No	*Postoperative Complication*
12	Transitory hypocalcemia
15	Transitory hypocalcemia
16	Cardiac failure
20	Dyspnea with cyanosis

Postoperative x-ray therapy was given in 13 cases. Eight of these patients had diffuse thyroid enlargement, three with multiple nodules and in two cases as palliation. The radiation dose varied from 2,200 to 4,160 roentgens. In some of the recurrent cases, additional radiation treatments were given.

Other primary cancers occurred in two patients. Patient #6 underwent right hemicolectomy for adenocarcinoma of the cecum ten years after the thyroid operation. Patient #11 underwent radical hysterectomy for carcinoma in situ of the cervix 12 years after total thyroidectomy.

Four patients underwent additional surgery for recurrence of the cancer (Table 9), all with papillary adenocarcinoma.

TABLE 9

OPERATIONS FOR RECURRENCE

Patient No	*Age*	*Operative Procedure*	*Interval After Original Operation*
5	19	Right thyroid lobectomy with partial left neck dissection	4 yrs
		Excision node from left jugular chain	4 yrs 8 mos
9	63	Excision node of right neck (twice)	2 yrs 8 mos
12	21	Excision node from posterior neck	2 yrs 6 mos
13	26	Partial right neck dissection	8 mos

Six of our 21 patients were operated on in the last four years; one died four months and one three months after the discovery of the cancer (anaplastic carcinoma and lymphosarcoma respectively, patients #16 and #19). The remaining four are alive and without recurrence. Fifteen of the 21 patients underwent operation five or more years before the present study; three of these patients were lost to follow-up (patients #4, #6 and #13).

Eight patients died. Three were lost to follow-up, and ten are surviving. An attempt of survival rate in our small series is shown in Table 10. The survival in relation to age is presented in Table 11.

TABLE 10

SURVIVAL RATE (%)

Type of Cancer	*No of Cases*	*2 yrs*	*5 yrs*	*10 yrs*	*15 yrs*
Papillary adenocarcinoma	9	77.8	66.7	55.6	22.2
Follicular adenocarcinoma	2	100.0	100.0	50.0	50.0
Mixed papillary and follicular adenocarcinoma	2	50.0	50.0	50.0	0.0
Malignant lymphoma	4	50.0	0.0	0.0	0.0
Other	4	75.0	25.0	0.0	0.0

TABLE 11

RELATION OF AGE ON SURVIVAL IN 21 CASES OF THYROID CANCER (%)

Type of Cancer	*Under 50*		*50 & Over*	
	5 YR	10 YR	5 YR	10 YR
Papillary adenocarcinoma	44.4	33.3	22.2	22.2
Follicular adenocarcinoma	100.0	50.0	—	—
Mixed papillary and follicular adenocarcinoma	—	—	50.0	50.0
Other	—	—	12.5	0.0

Discussion

The 4.05% incidence of thyroid cancer in our surgical specimens is comparable to, but slightly lower than, other reports.

Cole found carcinoma of thyroid in 7.2% of 523 patients with nodular goiter, with a 1.2% cancer incidence in 330 toxic nodular glands and 17.1% in 192 cases of nontoxic nodular goiter.[9] Rickey reported an incidence of 6.9%.[6] Sutton found cancer in 10%.[8] Olen reported a 2.5% incidence of thyroid cancer associated with hyperthyroidism.[10] In our series, we have only one case of hyperthyroidism associated with cancer of the thyroid. Medina found a 5.4% of cancer with hyperthyroidism.[4] Approximately 65% of thyroid cancer patients are women.[1] In our series, this incidence was 66.7%; this predominancy in women also is reported by others.[2, 3, 5, 6, 8–11] In our series, papillary carcinoma was present in nine cases (42.9%); undifferentiated carcinoma occurred in eight cases (38.1%); follicular carcinoma in two cases (9.5%). Another study reported incidences of 62% for the papillary type, 20% for the follicular type and 18% for the undifferentiated carcinoma.[1]

Tollefsen reported a 3.7% incidence of recurrent thyroid cancer in the remaining lobe in his group who had total lobectomy and 30% of microscopic carcinoma in the opposite lobe in his group of total thyroidectomy for clinically unilateral cancer.[12]

Recurrence occurred in four of our 21 patients (Cases #5, #9, #12 and #13). They underwent additional surgery and additional radiation therapy. Three of these are alive and without recurrence, and Patient #13 was lost to follow-up (Table 9).

Clark *et al* are in favor of total thyroidectomy to remove all the tumor cells. They found dissemination of the cancer beyond the primary focus in 87% of their group subjected to whole organ study.[13] Our small group does not permit significant conclusions about statistical survival. However, they appear to be similar to other studies showing better survival in the well differentiated tumors.

Butler reported a 5% incidence of thyroid cancer in cases with other primary carcinoma.[14] Shimaoka, reviewing the literature, found 165 reported cases of thyroid carcinoma associated with other primary malignant tumors either synchronously or metachronously.[11]

Frozen section biopsy studies are sometimes difficult for pathologic accuracy. We have a case (Case #19) in which the frozen section biopsy was interpreted as thyroiditis, but the permanent preparation showed lymphosarcoma.

SUMMARY

Five hundred and eighteen operations on the thyroid gland were carried out from 1948 to 1968 at the Missouri Pacific Employes' Hospital Association. In 21 cases, malignancy of the thyroid was present giving a cancer incidence of 4.05%. The most frequent tumor was papillary adenocarcinoma which occurred in 42.9% of our cases. Time of survival was longer in more differentiated tumors.

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The Heart Association's Committee on Medical Education has prepared a tabletop self-testing unit on "Diagnosis and Treatment of Peripheral Vascular Disease" for use at medical society meetings, as a teaching exercise for medical students and house officers and as a basis for discussion at hospital staff meetings.

Consisting of four panels illustrating medical case histories, the unit is intended to test diagnostic ability through pertinent illustrated data. A testing booklet of instructions, multiple choice questions and answers and a discussion guide accompany the unit.

The testing unit may be obtained through the Missouri Heart Association, P.O. Box Q, Columbia, Mo. 65201.

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Aerosol Inhalation for 'Kicks'

In recent months, there has been a disturbing outburst of inhalation of aerosol gases for "kicks" by the teenage and young-adult group in several communities in the Midwest. The source of this gas primarily has been a "cocktail-glass chiller," but the more adventurous types have been casting about and trying other products such as hair spray, disinfectant spray and other bombs which deliver materials under pressure. The favorite aerosols have been those delivering Freon as a glass chiller ("Can of Frost") and some of the disinfectants which incorporate alcohol as a solvent, e.g., Bactine spray.

It has been noted that very little, if anything, has been published in the usual reference books or medical journals about this particular habit and its dangers. This apparently has led some clinicians to feel either inadequate when faced with this problem or to echo the standard textbook and manufacturer's claim, viz., "Freon is nontoxic, odorless, tasteless and harmless." This definitely is not the case. Research of the literature and contact with users has produced some data which are shared below:

Freon[1]

Chemical properties. Freon 12 (CCl_2Fl_2) is the compound most often used as a propellant in aerosol spray. Its molecular weight is 120.9, the boiling point is 21.6 degrees and the freezing point is −252 F degrees. It is described as a stable, noninflammable fluorocarbon with a low degree of toxicity and a lack of odor, all of which provide a unique combination of properties especially desirable for the propelling force in the rapidly expanding industry of aerosol products. Most aerosol formulations require a propellant which is a solution of two Freon compounds so that the right pressure, stability and solvent properties can be obtained.

The most commonly used propellant for nonfood aerosol is Freon 11, either by itself or in combination with other Freon compounds. Freon 114 is used either alone or with Freon 11, principally in the cosmetic field. Freon C318 recently has been approved as a propellant for food products. The following is a partial list of products on the market which are propelled by one type of Freon or another: air sanitizers, antiperspirants, burn preparations, colognes, hair dressings, hand lotions, insecticides and repellents, paints, pet products, pharmaceuticals, window cleaners, water repellents, waxes, etc.

Toxicity

Sollman[2] states that Freon is relatively nontoxic, but that inhalation of a 20% vapor produces analgesia and confusion, though not unconsciousness. Tremors are prominent and convulsions may occur with high concentration. Recovery is complete in ten minutes. Animals survive exposures to 80% for 15 minutes, but not for 30 minutes. It is noninflammable. In the presence of flame, however, it may be partly decomposed, producing phosgene, chlorine and volatile acids.

Habit Description

There are two principal methods by which a teenager may misuse this propellent:

(1) Direct spray into the oral cavity and
(2) Spray into the oral cavity from an intermediary container, such as a balloon.

In the Oct. 23, 1967 issue of *AMA News*, there was a warning which concerned the potentially fatal fad of spraying Freon from a cocktail glass chilling compound directly into the oral cavity. There was very little further elaboration. It does appear, however, that this type of direct delivery can produce the following:

(1) Laryngo-spasm which may result from the shock of the sudden and violent cooling effect resulting from the "flashing" of the propellant.

(2) A partial anoxia due to the sudden dilution of alveolar air and which results in a "high" feeling.

(3) Damage caused by the sudden freezing effects of the Freon either in the oral cavity, the respiratory tract or the lung tissue.

(4) Liver or kidney damage which may appear as a result of chronic abuse of this chemical. The central nervous system (CNS) depressant and other effects can be expected

Recent experimentation by adolescents with various chemicals in an effort to achieve "kicks" has led to several fatal reactions to Freon used to chill cocktail glasses. The gas usually is delivered into a balloon and then allowed to implode into the mouth. The authors believe the fatal action of Freon is due to asphyxiation or aspiration of vomitus and illustrate their paper with accounts of actual fatalities. Dr. Chapel is Associate Professor, Department of Psychiatry (Child) and Mr. Thomas is Chief Pharmacist and Instructor in Pharmacology at the University of Missouri Medical Center.

to resemble the CNS effects of carbon tetrachloride and chloroform qualitatively. There are also reports of gastrointestinal complaints after inhalation, i.e., nausea, pain, vomiting and diarrhea.

The most common variation of the above method involves discharging the Freon into a balloon and then allowing the balloon to warm up to room temperature, either by actively massaging it or by letting it stand. In this type of abuse, the chilling effect is lost when the gas is allowed to expand into the balloon. Partial asphyxiation may still take place when the balloon is inserted into the mouth and allowed to implode suddenly into the pharynx and, thence, to the lung. In this form of inhalation, all of the aforementioned effects can occur except for the freezing. In addition to the feeling of "high," there is a sudden change in the quality of the voice and it may become either a whisper or a rather hoarse-sounding voice referred to as a "Donald Duck" voice by teen-agers. This very probably is a result of the decreased density of the air flowing past the vocal chords during speech.

More spectacular toxic symptoms may be experienced when the Freon is inhaled after being sprayed through an open flame. This actually is a reaction to inhalation of the products of degradation formed when the gas is subject to pyrolysis, i.e., phosgene, hydrochloric acid, chlorine and other gases.

It has been reported on several occasions by the abusers that the subject, either when inhaling directly from the can or from the balloon, may have a momentary inability to breathe, may become somewhat panicky and may feel high but rather frightened. Some teenagers apparently have experienced this often enough to be familiar with the sensation and are no longer frightened. In fact, the sensation of being unable to breathe may be part of the "kick" which they are seeking.

Following are excerpts from items appearing in newspapers regarding two fatalities associated with inhalation of aerosol gases:

Youth Had Inhaled Gas, College Says

College officials have confirmed that Student X, who died at the college, had been inhaling a gas normally used as a refrigerant.

However, both the college spokesmen and the county coroner refused to establish any direct relationship between the gas and the death of the college freshman. The death had been certified as due to strangulation, caused by vomiting which impeded breathing.

Officials at the college said their investigations indicated that Student X had bought a spray can of the gas at a store in a nearby town, during a weekend and brought it back to school. At least two classmates reportedly told school officials they were inhaling the fumes with him before his death.

Student's Death Ruled Asphyxiation

The county coroner ruled today that the death of a university student found dead last night in his rooming house near the campus was "caused by an asphyxia phenomenon due to the inhalation of Freon in high concentration."

The coroner told the paper the student apparently had been inhaling Freon—a chemical normally used for refrigeration—from a balloon in order to produce "an intoxicating effect."

The doctor said that death in this case was not directly attributable to the toxic effect of the gas but "that death was actually caused by oxygen deprivation."

He emphasized that Freon used in most refrigerators and freezers is nontoxic unless inhaled in large concentrations.

Other Gases

Another odd method of achieving a "kick" was discovered by a 15-year-old high school student who persisted in inhaling the fumes from a can of Bactine which he sprayed into its cap. This boy was first referred to the police department when he was found in a public lavatory crawling on his hands and knees clad only in an undershirt, mumbling incoherently to himself. The report had been turned in by the manager of the store who had stated that there was "a young kid in our bathroom who keeps fainting on us."

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They did not know what the problem was, and they were seeking help from the police.

It took the police at least five minutes to arrive, and they found a boy who apparently was ill in the restroom. The boy was sitting on the floor, seemingly very weak and perspiring freely. His speech was slow, soft and slurred, and he was difficult to understand. He was holding the cap from an aerosol can in his hand and an empty Bactine antiseptic spray can was lying nearby.

The boy was referred to our Mental Health Clinic for evaluation. It was there that he described the sensations from this type of sniffing. He stated that he sniffed Bactine to get a "kick" and described the sensation as being similar to the sensation one gets from a fast descent and a sudden stop in an elevator. He admitted having sniffed this spray on seven different occasions in the past two months. He described the sensation as lasting one or two minutes and denied vomiting or nausea or weakness, although the police report indicated that he was very weak and appeared faint when they saw him. It was quite obvious that he had amnesia for some of the events which occurred while he was under the influence of the gas. He said that he had been introduced to the habit by a friend and that he was taking it now because he had not been able to make any new friends since moving to this city. He said that he was very unhappy in his aloneness.

The chemical most likely responsible for the toxic syndrome seen in this type of abuse is isopropanol which is used as a solvent. Sollman[2] states that the acute narcotic potency of isopropanol is about twice that of ethyl alcohol. Acute poisoning can occur from inhalation. It is metabolized more slowly in man, and accidental inhalation of vapors in poorly ventilated areas has produced deep coma.[3] (Bactine has 3.7% isopropanol.)

COMMENT

This type of drug or chemical abuse is not without its serious consequences. In 1967, the National Clearing House for Poison Control Centers Bulletin of November-December stated the following: "Not so with cocktail glass chillers. Six deaths have already been reported from the Freon in these preparations. The cause of death is not clear, but it may be from freezing the lung tissue, laryngospasm or, possibly, anoxia because of displacement of air."

Since that time there has been very little written (if at all) about the new "thing" being done by teenagers. Recently, when the authors searched the literature on this problem, they found a virtual absence of information except for the three listed references. It is alarming to note that in our small community (population 40,000) two deaths have recently been reported and linked directly to inhalation of Freon delivered from the cocktail glass chilling preparation. Both were college students under 20 years of age.

It is, therefore, quite clear that this method of achieving a "kick" is rather treacherous and dangerous and one of which physicians ought to be aware. There is probably no treatment for the acute laryngospasm incurred from this practice since the subject usually is well in a few minutes or he does not survive. There also is a possibility that death may not occur directly from laryngospasm but from strangulation secondary to aspiration of vomitus. Is it also possible that in the "balloon delivery," there may be enough sudden pressure increase to rupture alveolar tissue and allow formation of fatal air emboli?

SUMMARY

The inhalation of Freon and other gases used as propellants in various aerosol bombs, e.g., cocktail glass chiller, air conditioning refrigerants, etc. is not without danger. Six deaths were reported in November-December, 1967, and two other recent deaths from a small college town are added to the list. Undoubtedly, many other fatalities of which the authors are unaware have occurred. Death can occur from asphyxiation or strangulation (or air embolism?). The authors point out the paucity of reports on this lethal "kick" and emphasize that the most commonly abused compound is that contained in "cocktail glass chilling" compounds.

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President's Message

A few more "punches" such as the Columbia Broadcasting System recently gave to the medical profession and we will be set up for that final proverbial left hook which will put our system of "free practice" down for the count.

Since the days of the first Wagner-Murry-Dingel bill, we have known that we were in a fight for our very lives. It has been conceded at the AMA level that the socialist planners would be back again and again until they finally succeed in taking us over—but, unfortunately, the leadership of organized medicine is still reacting "after the fact."

Joseph L. Fisher, M.D.

The *American Medical News* (read primarily by physicians), in its edition of April 27, headlined an article "MD's Ask Equal Time to Rebut CBS Shows." This was another reaction—I failed to note any headlines in leading newspapers indicating such a request.

The article with the headline, mentioned in the preceding paragraph, said that telegrams signed by Gerald D. Dorman, M.D. and Julius W. Hill, M.D. had been sent to William S. Paley and Dean Burch. However, the article did not include the mailing addresses of Paley and Burch so that thousands of incensed AMA members could have wired or written to these men to express their own personal objections to the distortions of the truth which were included on the CBS television show.

In failing to make the information concerning addresses available, the AMA missed a chance to gain support from thousands of irate physician members. A hundred thousand or more letters or telegrams should carry much more weight than just two telegrams from medical leaders.

Incidentally, you can write to William Paley at the CBS Television Network, 51 West 52nd St., New York, N. Y., and to Dean Burch, Chairman of the Federal Communications Commission, in care of the FCC, Washington, D. C.

Thousands of dedicated physicians all over the country are working long hours, losing sleep, missing meals and abusing their bodies, as well as neglecting their own families, to relieve human suffering. The American Medical Association, State Medical Associations and County Medical Societies must develop programs to show this side of the story to the world over and over again.

The AMA's Assistant Vice-President Richard S. Wilbur, M.D., in a recent address before a group of physicians, said, "The people who are looking for headlines and the people who are writing them find people who live in unspeakable slums owned by absentee landlords who are under no legally enforced obligation to provide heat, running water, sanitation, paint or pest control. And then these writers blame the medical profession and the system, or as they call it the 'nonsystem,' for the fact that these unhappy, unfortunate, neglected people are not healthy." We need to work to get information such as this before the American public—not just physicians who already know it.

It is hard to understand how educated men who save lives and instruct people concerning proper living habits have not as a group done enough to convince the public that excessive human reproduction in the face of inadequate income leads to excessive medical problems and increasing trouble for mankind. But, at the same time, the population control problem is one of society as a whole and cannot be laid at the

UNIVERSITY OF MARYLAND

doorstep of the medical profession. The great population increase has led to a health manpower shortage and higher costs of health care. This is another fact which has not been made clear to the public.

Many medical students claim that the AMA leaders seem so preoccupied with minutia that at no time during the past 20 years has the AMA developed suitable plans or ongoing visible programs to solve some of the bigger problems confronting medicine today.

The following quote from the *American Medical News* expresses some of the philosophy of the organization's leadership: "Let those who blame doctors for the soaring costs in the Medicare and Medicaid Programs read 'An MD's Report on Medicaid' by Paul F. Maddox, M.D., which was in the *American Medical News* on March 9, 1970." It is unfortunate that an article about a dedicated physician such as Dr. Maddox is read only by other physicians and not by the general public.

Admittedly, the report by Dr. Maddox is an unusual one from a dedicated physician in a poverty region, but dedication and unselfish devotion to humanity can be observed in any community served by physicians.

If those of us in organized medicine at all levels are to get stories about men such as Dr. Maddox along with information concerning our positive programs for the good of our patients into the news media and on the television networks, we will probably have to prepare our own documentaries and purchase the space and air time to have them used.

A great deal of money will be involved, but if we are to stop being counter-punchers and actually take the offensive, then we must be willing to spend the money to get the job done.

Leadership for such an offensive must come from the AMA, but we must do our share at the state and local level. We, as members of the AMA, must see that such an offensive is carried out before it is too late. Let's join up and push to get our profession moving in the right direction.

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Woman's Auxiliary

A five-day whirlwind tour of Missouri, which took us to Poplar Bluff, North Kansas City, Sedalia, Columbia and St. Charles, provided an exciting experience and a liberal education for the MSMA Auxiliary traveling team consisting of President-Elect Mrs. Frank J. Valach; First Vice-President Mrs. Thomas Thale; Health Careers Co-Chairman Mrs. Robert Blalock; and me. The reason for our trip was to conduct District Workshops. These workshops represent one of the ways we keep our members informed about Auxiliary activities and give them the opportunity to reciprocate by showing us firsthand what they are doing and what they are thinking.

Mrs. William M. Walker
President

You will be interested in these concerns of Missouri doctors' wives:

First, they want to know how they can help YOU! They know you need more help, so they want to know about the new ideas we can offer in Health Careers Recruitment. They're trying very hard to sell young people on the idea of choosing one of the more than 280 occupations available today in health careers. They're trying to interest previously-trained adults in taking refresher courses in their fields and reentering the working world. Their persuasive tactics also are being used to encourage other adults to enroll in adult education classes which can prepare them to enter the health field.

Second, they want to know how they can combat the one-sided, destructive picture being painted of medicine through the communications media. They were particularly unhappy with the TV special titled "Don't Get Sick in America Today." Your wives acknowledge that there are many problems in the delivery of health care, but they actively resent your being made the whipping boys for these problems. Your exceptionally long hours of work for patients, hospital staffs, meetings, etc. do not go unnoticed by your wives, and they are pleading for fairness and honest, objective reporting. What else can they do about this besides write letters?

Third, Missouri doctors' wives want to know how the Auxiliary is changing and updating its programs and how they can apply these programs to their local situations. The women who attended the workshops are very much aware of the problems in their communities and they wanted specific information about these problems. How can they educate the people in their town about the dangers of drug abuse, venereal disease? How can they encourage blood donors? What can they do about improving the quality of their environment? How can they strengthen the family units?

Their questions were many and varied, as you might guess, since the workshops began at 10 AM and continued until 2:30 PM. If your wife was unable to attend the workshop in her district this year, urge her to attend next year. For a doctor's wife, the workshop is one of our most valuable and effective meetings.

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EDITORIALS

A LEGACY FROM THOSE OVER 30

The much-maligned older generations got their due from the president of Penn State, Eric A. Walker, in a speech to last summer's graduating class.

"If you of the graduating class will look over into the bleachers to your left or right, I would like to introduce you to representatives of some of the most remarkable people ever to walk on earth. These are people you already know—your parents and grandparents. And remarkable people they are indeed.

"Not long ago an educator from Northwestern University by the name of Bergen Evans got together some facts about these two generations—your parents and grandparents. I'd like to share some of these facts with you.

"These are the people who have given you a healthier world than they found. And because of this you no longer have to fear epidemics of flu, typhus, diphtheria, smallpox, scarlet fever, measles or mumps. And the dreaded polio is no longer a medical factor, while TB is almost unheard of.

"Let me remind you that these remarkable people lived through history's greatest depression. Many of these people know what it is to be poor, what it is to be hungry and cold. And because of this, they determined that it would not happen to you, that you would have a better life, you would have food to eat, milk to drink, vitamins to nourish you, a warm home, better schools and greater opportunities to succeed.

"Because they gave you the best, you are the tallest, healthiest, brightest, and probably the best looking generation to inhabit the land.

"Because they were materialistic, you will work fewer hours, learn more, have more leisure time, travel to more distant places, and have more of a chance to follow your life's ambition.

"These are also the people who fought man's greatest war. They are the people who defeated the tyranny of Hitler, and who when it was all over had the compassion to spend billions of dollars to help their former enemies rebuild their homelands. They had the sense to begin the United Nations.

"They built thousands of high schools, trained and hired tens of thousands of better teachers, at the same time made higher education a real possibility for millions of youngsters—where once it was only the dream of the wealthy few.

"They made a start—although a late one—in healing the scars of the earth, in fighting pollution and the destruction of our natural environment. They set into motion new laws giving conservation new meaning, setting aside land for you and your children to enjoy for generations to come.

"They also hold the dubious record for paying taxes—although you will probably exceed them in this.

"While they have done all these things, they have had some failures. They have not yet found an alternative for war, nor for racial hatred. Perhaps you will perfect the social mechanisms by which all men may follow their ambitions without the threat of force—so that the earth will no longer need police to enforce the laws, nor armies to prevent some men from trespassing against others.

"They made more progress by the sweat of their brows than in any previous era—don't forget it. If your generation can make as much progress in as many areas as these two generations have, you should be able to solve a good many of the earth's remaining ills.

"It is my hope, and I know the hope of these two generations that you find the answers to many of these problems that plague mankind.

"It won't be easy. You won't do it by negative thoughts, by tearing down or belittling. You may and can do it by hard work, humility, hope and faith in mankind. Try it."

St. Louis County Medical Bulletin

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County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

Buchanan County Medical Society

Twenty-six physicians braved the blizzard conditions of a late winter storm on April 1 to attend the annual "Cancer" program of the Buchanan County Medical Society. A dinner, business meeting and the program were held at the Ramada Inn in St. Joseph.

The speaker for the event was Jose M. Sala, M.D., director of the Radiation Center at Burge-Protestant Hospital in Springfield and chairman of the program committee for the Missouri Division of the American Cancer Society.

In his discussion of "Facilities in Missouri for Comprehensive Medical Care of the Cancer Patient," Dr. Sala emphasized the physician's role in informing people of the availability of cancer examination and treatment in Missouri as well as his role in advising that cancer is more readily curable if detected early. He outlined the excellent facilities for cancer treatment at the Ellis Fischel State Cancer Hospital in Columbia.

Dr. Sala was introduced by Dr. Edward M. Stevens, president of the Buchanan County Cancer Unit.

Arrangements for the event were made by Mr. Richard J. Knox, regional consultant for the Cancer Society and members of the Medical Society Program Committee who are Drs. Philip C. Lehman, chairman; Richard O. Craig and Martin J. Fischer.

Dr. Owen W. D. Craig, President, presided at the meeting.

E. F. Butler, M.D., *Secretary*

Grand River Medical Society

Thirty members, their wives and guests met at the Strand Hotel in Chillicothe on April 9 for the regular monthly meeting of the Society. A social hour preceded the smorgasbord dinner.

The speaker for the evening was Charles B. Wheeler, Jr., M.D., Pathologist, Attorney and Judge of the Jackson County Court in Kansas City. Dr. and Mrs. Wheeler were introduced immediately before the wives left the meeting for their own Auxiliary program. Their subject was "Hobbies" and each Auxiliary member brought an example of her current hobby.

The scientific program for the physicians was under the auspices of the Society's Program Committee. Dr. Wheeler's discussion of a wide variety of subjects relating to medicine was interesting and enlightening. His subjects included medical public relations, taxes, news management by the press and the manipulation of vital statistics, all from a philosophical and factual basis.

At a short business meeting, the Program Committee suggested that Norma Farmer, M.D., of Farmington be invited to speak at the Society's September meeting. Her subject will be "Medicine in India."

Frank R. Daley, M.D., *Secretary*

FIFTH DISTRICT

COUNCILOR
JAMES C. COPE, M.D., COLUMBIA

Boone County Medical Society

The Boone County Medical Society met on April 7 at Ernie's Steak House in Columbia.

Dr. Norman D. Asel, Secretary, read the report of Gayle Ward for the Special Committee on Rubella Vaccine and stated that 10,000 children had been vaccinated in Boone County.

Dr. B. A. Moranville reported on the status of patients in the Boone County Nursing Home.

Dr. Hugh E. Stephenson, Jr., reported on resolutions introduced at the Missouri State Medical Association's annual meeting in Kansas City on April 2-5. He stated that the resolution from the Boone County Medical Society regarding full membership for osteopaths in the county and state medical societies had been passed by the House of Delegates.

Dr. William B. See reported on the changes in the Missouri Abortion Law that had been recommended by the House of Delegates.

Dr. William D. Mayer discussed the Family

"He's terribly frustrated. Next time he throws something, try not to duck."

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Practice Program proposal which is to be initiated at the Medical Center in the future.

NORMAN D. ASEL, M.D., *Secretary*

NINTH DISTRICT

COUNCILOR
E. A. STRICKER, M.D., ST. JAMES

SOUTH CENTRAL COUNTIES MEDICAL SOCIETY

The South Central Counties Medical Society met at the City View Cafe in Mountain Grove on April 22. Those in attendance were Dr. and Mrs. James Giffen, Springfield; Dr. and Mrs. O. M. Hasek, Mountain Grove, host and hostess for the evening; Dr. and Mrs. C. W. Cooper, Thayer; Dr. and Mrs. W. T. Morgan, Dr. and Mrs. M. L. Fowler and Dr. and Mrs. Jack N. Wiles of West Plains; Dr. and Mrs. C. F. Smith, Willow Springs; Dr. and Mrs. R. W. Denney and Dr. and Mrs. James Hasek, Mountain Grove; and Richard Eissen, Preceptee of Dr. C. F. Smith from the University of Missouri Medical Center.

After a brief social hour and dinner, Dr. Giffin gave a report on medical care in Vietnam and his experiences while serving in Vietnam. He illustrated his presentation with slides.

A brief business session was held following the lecture and it was voted to hold the next meeting in Houston on May 27 with Dr. and Mrs. Joe Wall as host and hostess.

JACK N. WILES, M.D., *Secretary*

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AMA Adds New Exhibit on Drug Abuse Control

A timely new exhibit, "Drugs—Are You Facing the Decision?," is now available for public showings by medical societies and other organizations involved in drug abuse control programs.

Its message is addressed to young people and their parents. The display features concise copy on marihuana, stimulants and depressants, youth-oriented illustrations, a revolving "fact" drum and a taped message on two earphones for "viewer involvement."

The exhibit is 10 ft. in length, self-contained and illuminated; it weighs 400 lb. It may be borrowed from the AMA Exhibit Section without charge, except for round-trip transportation costs. The Section asks that reservations be placed at least three months in advance.

Brief Summary of Prescribing Information—9-9/22/69. For complete information consult Official Package Circular.
Indications: Essential hypertension. Use cautiously in patients with renal insufficiency, particularly if they are digitalized.
Contraindications: Anuria, oliguria, active peptic ulceration, ulcerative colitis, severe depression or hypersensitivity to its components contraindicates the use of Salutensin.
Warnings: Small-bowel lesions (obstruction, hemorrhage, perforation and death) have occurred during therapy with enteric-coated formulations containing potassium, with or without thiazides. Such potassium formulations should be used with Salutensin only when indicated and should be discontinued immediately if abdominal pain, distension, nausea, vomiting or gastrointestinal bleeding occurs. Use cautiously, and only when deemed essential, in fertile, pregnant or lactating patients. *Use in Pregnancy:* Thiazides cross the placenta and can cause fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly electrolyte disturbances. Fatal reactions may occur with reserpine during electroshock therapy; discontinue Salutensin 2 weeks before such therapy. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated mothers.
Precautions: Azotemia, hypochloremia, hyponatremia, hypochloremic alkalosis and hypokaliemia (especially with hepatic cirrhosis and corticosteroid therapy) may occur, particularly with pre-existing vomiting and diarrhea. Potassium loss or protoveratrine A may cause digitalis intoxication. *Potassium loss responds to potassium-rich foods, potassium chloride or, if necessary, discontinuation of therapy. Stop therapy if protoveratrine A induces digitalis intoxication.* Serum ammonia elevation may precipitate coma in precomatose hepatic cirrhotics. Discontinue therapy 2 weeks before surgery or if myocardial irritability, progressive azotemia or severe depression occur. Exercise caution in patients with chronic uremia, angina pectoris, coronary thrombosis or extensive cerebral vascular disease *or bronchial asthma* and in those with a history of peptic ulceration or bronchial asthma; in post-sympathectomy patients; in patients on quinidine; and in patients with gallstones, in whom biliary colic may occur. Patients who have diabetes mellitus or who are suspected of being prediabetic should be kept under close observation if treated with this agent.
Adverse Reactions: Hydroflumethiazide: Skin rashes (including exfoliative dermatitis), skin photosensitivity, urticaria, necrotizing angiitis, xanthopsia, granulocytopenia, aplastic anemia, orthostatic hypotension (potentiated with alcohol, barbiturates or narcotics), allergic glomerulonephritis, acute pancreatitis, liver involvement (intrahepatic cholestatic jaundice), purpura plus or minus thrombocytopenia, hyperuricemia, hyperglycemia, glycosuria, malaise, weakness, dizziness, fatigue, paresthesias, muscle cramps, skin rash, epigastric distress, vomiting, diarrhea and constipation. *Reserpine:* Depression, peptic ulceration, diarrhea, Parkinsonism, nasal stuffiness, dryness of the mouth, weight gain, impotence or decreased libido, conjunctival injection, dull sensorium, deafness, glaucoma, uveitis, optic atrophy, and, with overdosage, agitation, insomnia and nightmares. *Protoveratrine A:* Nausea, vomiting, cardiac arrhythmia, prostration, blurring vision, mental confusion, excessive hypotension and bradycardia. (Treat bradycardia with atropine and hypotension with vasopressors.)
Usual Dose: 1 tablet b.i.d.
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New Members

Ronald G. Evens, M.D., 510 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Evens is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1964. He specializes in radiology.

William H. Gondring, III, M.D., 2001 S. Lindbergh Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Gondring is a native of St. Joseph, received his preliminary education at the University of Missouri and his M.D. degree at Washington University in 1962. He specializes in orthopedics.

John F. Lindeman, M.D., 510 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Lindeman is a native of St. Louis, received his preliminary education at Regis College and his M.D. degree at St. Louis University in 1963. He specializes in internal medicine and nuclear medicine.

Fernando Lopez, M.D., P. O. Box 263, St. Joseph, has become a member of Buchanan County Medical Society. Dr. Lopez is a native of Callao, Peru, received his preliminary education at San Marcos University and his M.D. degree at San Marcos University in 1957. He specializes in psychiatry.

Mark May, M.D., 517 S. Euclid Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. May is a native of Philadelphia, Pa., received his preliminary education at Dickinson College and his M.D. degree at Hahnemann College in 1961. He specializes in otolaryngology.

Mitchell M. Mirbaha, M.D., 634 N. Grand Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Mirbaha is a native of Tehran, Iran, received his preliminary education at Alborz Secondary School and his M.D. degree at Tehran University in 1960. He specializes in orthopedic surgery.

Maarten Nieuwenhuizen, M.D., 803 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Nieuwenhuizen is a native of Amsterdam, Netherlands, received his preliminary education at Municipal University and his M.D. degree at the State University of Utrecht in 1953. He specializes in psychiatry.

Frank Ostapowicz, M.D., 1325 S. Grand Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Ostapowicz is a native of W. Nanticoke, Pa., received his preliminary education at Bucknell University and his M.D. degree at the University of Pittsburgh in 1948. He specializes in obstetrics and gynecology.

Raul A. Perez, M.D., 10510 Hackamore La., St. Louis, has become a member of St. Louis Medical Society. Dr. Perez is a native of Havana, Cuba, received his preliminary education in Havana and his M.D. degree at the University of Havana in 1946. He is in general practice.

Dennis A. Schmidt, M.D., 6150 Oakland, St. Louis, has become a member of St. Louis Medical Society. Dr. Schmidt is a native of Saskatchewan, Canada, received his preliminary education at the University of Omaha and his M.D degree at the University of Nebraska in 1960. He specializes in radiology.

Continuing Education Coming Events

June 9-11	**Lesions Related to the Spinal Cord: A Radiographic Pathological Correlation** Continuing Education, M.U. Medical Center, Columbia 65201
June 9-11	**Seminar: Management of Sensory Disorders** Menorah Medical Center, Kansas City 64110
June 24-25	**Diabetes** Continuing Education, M.U. Medical Center, Columbia 65201

ACS to Hold 56th Annual Clinical Congress on Oct. 12-16

The world's largest meeting of surgeons, the 56th annual Clinical Congress of the American College of Surgeons, will be held in Chicago on Oct. 12-16. Some 14,000 doctors and guests from throughout the world are expected to attend. Headquarters hotel will be the Conrad Hilton.

Among other features, the program will include the following:

—Eighteen postgraduate courses accredited by the Council on Medical Education of the AMA.

—More than 260 research-in-progress reports, called the Forum on Fundamental Surgical Problems.

—Some 60 panel discussions in general surgery and the surgical specialties.

—Operative telecasts from a leading Chicago hospital.

—Special sessions in graduate education, cancer, trauma.

—Approximately 450 scientific and industrial exhibits.

—Major addresses by the incoming President of the College and selected guest speakers.

—Presentation of the College's Distinguished Service Award.

The Clinical Congress of the American College of Surgeons is open to all doctors of medicine.

For further information and official registration forms, contact Mr. T. E. McGinnis, American College of Surgeons, 55 E. Erie St., Chicago, Ill. 60611.

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State Surgical Society Elects New Officers

The Missouri State Surgical Society, composed of general surgeons from the state of Missouri, held its annual business meeting and election on April 3 at the Hotel Muehlebach in Kansas City.

The following officers were elected to head the Society for the coming year: Drs. Cyril Costello, St. Louis, President; John Griffith, Jr., Kansas City, President-Elect; Hugh E. Stephenson, Jr., Columbia, Vice-President; and Howard E. Linville, Kansas City, Secretary-Treasurer.

In Washington

(Continued from page 351)

retary professional advice in carrying out this authority.

—*Repeal of Medicaid Provision Requiring Expanded Programs:* The requirement in present law that states have comprehensive Medicaid programs by 1977 would be repealed.

—*Prohibition of Reassignments:* Medicare and Medicaid payments to anyone other than a patient or his physician would be prohibited, unless the physician is required as a condition of his employment to turn over his fees to his employer or unless there is a contractual arrangement between the physician and the facility in which the services were provided under which the facility bills for all such services.

—*Utilization Review in Medicaid:* Require hospitals and skilled nursing homes participating in the Medicaid and maternal and child health programs to have the same utilization review committee with the same functions as in the Medicare program.

—*Role of State Health Agencies in Medicaid:* State health agencies would be required to perform certain functions under the Medicaid and maternal and child health programs relating to the quality of the health care furnished to recipients.

—*Physical Therapy Services Under Medicare:* Under Medicare's supplementary medical insurance program, beneficiaries would be covered for up to $100 per calendar year of physical therapy services furnished by a licensed physical therapist in his office or the patient's home under a physician's prescription. Hospitals and extended care facilities could continue to provide covered physical therapy services to patients who have exhausted their days of hospital insurance coverage.

—*Chiropractors' Services:* HEW would conduct a study on covering chiropractors' fees (on a very limited basis) under Medicare, utilizing the experimental authority under the Medicaid program. A report on the study, including the experience of other programs paying for chiropractors' services would be submitted to the Congress within two years.

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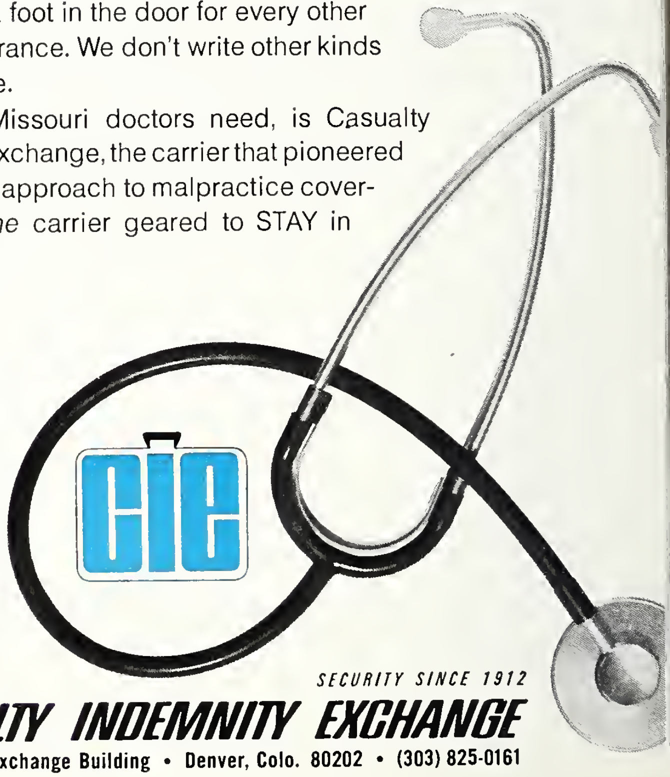

Medicine's Message

(Continued from page 347)

CARE NOT TO BE DENIED

In a country as rich as ours, certainly no one should be denied medical care—the best available—nor should he be hungry in a land of plenty—nor should any one lack the necessities of life—nor hopefully a few luxuries, too. The whole environment of the poor needs to be changed, this includes both the social and the educational aspects if we are going to solve the problems. The medical problem is but one of these, although it is a very important one.

The Question is not—do any problems exist, but—how big are they and how should they be solved? And the latter point is where it seems that the medical profession has run head-on into large segments of our population—that is, how should the problem be solved. The issue is an emotional one, and it does no good to point out that people already spend more on booze and cigarettes and TV repairmen than they do on doctors' services.

No one wants to be sick. It's like buying a dead horse. During the World Series, a guy wants his TV fixed and is willing to pay for it through the teeth if need be, but in the first place, he certainly doesn't want his gallbladder out, let alone pay for it.

SOCIAL PLANNERS INVOLVED

So we have a philosophical hang-up with the social planners who frequent Washington in all administrations. Our problems are going to have to be solved by cooperative effort between the private and public sectors of our country. A very gifted and farseeing Frenchman named Alexis De Tocqueville saw this over a hundred years ago and reported it in his classic book *Democracy in America*—a remarkably current book considering it was written in the 1830's. He felt that this cooperation between the two sectors was one of the things that made this country unique and would enable it to climb to its position of prominence that it has. The problem now is that we now have a strong group of people in this country who wish to continually phase out the private sector. Our role is being relegated to smaller and smaller decisions.

DIFFERENT CONCLUSIONS

I would like to make one thing clear now. Those who hold this different philosophy are not for the most part evil, conniving men, but are men who have taken the same set of problems that I have and have come to a different conclusion. Now this is all right, this is what makes a democracy tick. A man need not be your enemy to be your adversary in political matters. We need to remember this. This is what has been forgotten in recent months by those who would destroy our system. The mechanism for change is inherent in our political system. It is up to us to use the mechanism within the framework of the law. If we cannot convince the majority of our citizens that we are right, then we must abide by their decision until we can effect that change.

At any rate, there are those who feel strongly that the best and most efficient medical care is that which is totally administered by the government. There are those of us who disagree. In a democracy, we have a right to express our opinions and to campaign for them using any honest means at our disposal. You are no doubt aware of the recent unpleasantness regarding the Dr. Knowles affair. I, of course, was not involved in the interworkings of that struggle, and know nothing of what actually went on. I can say this though, and I truly mean it when I say that I don't know what happened backstage in Washington or any where, but I am of the firm conviction that if the medical profession felt that it could not cooperatively work with Dr. Knowles, it had a perfect right to say so. I do not find the fact unusual that it might make sense to have some rapport between an appointed official and the group of professionals with whom he has to work. I will not go into any reasons or personalities this time, but will say that if he had been appointed, organized medicine would have done its best to work with him, and would not have screamed foul to the press. In leaving that subject, I would just say that if Mr. Humphrey had won the election and had appointed Barry Goldwater as his Secretary of Labor, I wonder if the press would feel such editorial anguish if Mr. George Meany found it within himself perhaps to mildly protest the appointment.

WHY FEAR CONTROLS?

A legitimate question I think may be, Why do we fear governmental control over the practice of medicine? Is it just monetary? Well, I am reasonably sure you don't expect me to answer that question with a "yes" and I won't disappoint you. One cannot dismiss that consideration completely, however, and I think a fair answer should be given. Nobody knows for sure, of

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course, but I would expect the income of doctors to increase at first, or at least stay the same, but over the long haul it would likely decline, but that is really not the main problem—believe it or not. The main issue is the delivery of medical care of the highest possible quality, and in the best manner possible. We believe this is best done with a personal doctor-patient relationship in a system that allows the doctor the individual freedom to prescribe what he feels best for a particular individual.

Source of Difference

Here is where one of the biggest hang-ups occur. Government planners tend to look upon the practice of medicine as a pure science. It definitely is not. It is both an art and a science. Everyone is an individual including each of you and no one on God's green earth can sit in Washington or Columbus, nor anywhere else except across from that particular patient and decide what is best for that person. It can't be done.

There is another area where the government plans go off the deep end—it's showy but not effective—when they want a particular problem studied they pick a dazzling array of big names—men who are experts in some fields of medicine—but who really know absolutely nothing about the private practice of medicine or about what's going on each day out on the firing line.

Because a doctor may be a world renowned professor of medicine or surgery at a medical school does not mean that he is an expert on the private practice of medicine out in the boondocks. Indeed, it is likely that he has never been in a private office in his life except as a patient, perhaps. Now this does not mean that his counsel should not be sought, but to constitute the whole committee of such men doesn't make sense.

I have talked a lot about problems—what about solutions and alternatives.

Political Action Is Key

I'll tell you what we are doing in one area. It has taken us a woefully long time, but we, in medicine, are finally learning that there is nothing sinful, wrong or underhanded about an individual or organization becoming involved in the business of running his country. Indeed, it is not only not wrong, but it is inexcusable to avoid this responsibility. Justice Oliver Wendell Holmes once said, "It is required of a man that he should share the action and passion of his times at peril of being judged not to have lived." I like that. It says: Get involved. That is why I am here tonight. I am involved, and I want to get you involved. We found out sometime ago that the place to influence legislation was in November of an election year—not in Washington in January. It is imperative that we all become involved in the active support of good men who are willing to run for political office. He doesn't have to see eye-to-eye with you on all issues, and you certainly don't want a man you can buy, but hopefully you will want a man who shares your same general philosophy, and who will be progressive—not ignoring the present pressing problems that face us today—but be willing to try other solutions than joining the already overcrowded chorus of those who wish to abdicate their responsibilities to the great eternal fountain of wealth from whence all blessings flow on the banks of the Potomac.

Apathy Is Dangerous

One of the biggest problems facing us today is political apathy. Each of you should have taken the time to develop a political philosophy and be willing to support candidates with whom you can identify—with both your time and money. You cannot enjoy the luxury of being neutral. This is not the time in America for political eunuchs. So one alternative is to try to work within our present political set up to elect men of high calibre with whom we can communicate and discuss our problems.

I hope that your organization has a political action committee or group but, if you do not, we have one in which you are more than welcome. OMPAC—The Ohio Medical Political Action Committee—has been very active for the past several years in these same areas to which I am now alluding. We would welcome any and all of your memberships. It costs but $25 a year to join and I can assure you that it will be a wise investment of your money. I will be happy to provide you with specific information as to how to join if you so desire.

The other alternative to me is rather grim. We can follow the lead of Great Britain and other European countries.

Last year, I had the privilege of visiting with a British doctor in his home and his office. We were both mutually curious about a great many details of our various practices.

Trivia Is Overwhelming

When I asked him how things were going, he said: "Doctor, we are overwhelmed with trivia." He did say, however, that he and his associates made about 20 to 30 house calls a day, which presumably makes British editorial writers happy although it is a tragic waste of medical manpower. (Please don't misunderstand me. House calls are often necessary, and my partner and I do make them.) There had been some recent turmoil in the system in Great Britain relative to the lot of the general practitioners before I had arrived there and it had been resolved with some improvement in the lot of the G.P., but Dr. Jones told me that before that had occurred he was getting ready to emigrate. Think of that! Here was a man 52 years old thinking of pulling up stakes and starting all over again in a new country—Canada or Australia perhaps. That, my friends, is a drastic step.

He was also concerned about the loss of their bright young men who either did not go into medicine or, if they did, tried to come to America at the first possible opportunity. Here was a man who was not bitter—was not out carrying signs to repeal the system. He found some good in it, but he was very concerned about the quality of medical care that was being delivered. He said, and again I quote: "We are being reduced to mediocracy." I asked him what bit of advice he would give to me to bring back since I told him that we were doing our best over here to out-British the British. He said: "For God's sake, don't make everything free; don't relieve the patient completely of the responsibility for his own welfare if he can possibly afford it—even if it is a small amount." And then he said something very significant. He said that, as you perhaps know, the late Lord Beveridge was responsible for drafting the social welfare plan now existent in Great Britain. He said that Lord Beveridge drew up a beautiful plan on paper. He showed beyond a shadow of a doubt that the absenteeism from work was high because of inadequate health care of the people, and that if "free" medical care were available, and I use the word free in quotes, the same people would have access to better care and therefore they would miss less work—the gross national product would rise—and the health service would not only pay for itself, but would make a profit. It was a thing of beauty, Dr. Jones said, and a joy to behold. But alas, Lord Beveridge took into account every factor but one—PEOPLE. And therein lies the rub.

Heirs to a Heritage

Ladies and gentlemen, all of us in this room tonight are the heirs to a great heritage of freedom and liberty. We are also heirs to a tradition of concern for those who are less fortunate than we, and for those whose lives have not been as pleasant as ours, only because they are black or yellow or speak with an accent, or go to the wrong church. History will judge us as it has all men and all generations. It will note what we have received from the past, and will pass judgment on our stewardship when it is time for a new generation and a new age to assume command.

Perhaps we cannot change the course of history. Perhaps, as the cynics say, we can do nothing but ride the tide of socialism to its better end. I do not have the final answer. But, when that judgment is written, let it be said that we tried at least to support intelligent, progressive solutions to our country's problems, solutions that would provide alternatives to the completely paternalistic state. And let it further be said that here were men at least who were determined that the cause of freedom was not going to lose by default, nor for the want of a champion.

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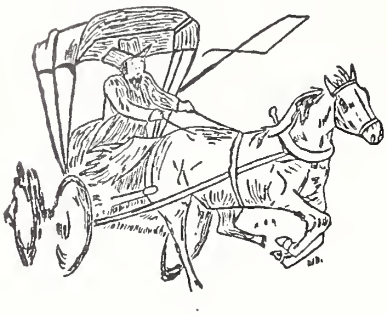
LEO H. POLLOCK, M.D.

Missouri Medicine in Review



FORTY YEARS AGO

In an address on the occasion of the 80th birthday of Dr. William H. Welch, Dr. Ernest Sachs said, "Your program committee has asked me, a former pupil of Dr. Welch, to say a few words about him tonight when all over the world meetings are being held to do him honor on this, his 80th birthday, April 8. The fact that the President of the United States is taking part in celebrating the birthday of a private citizen, this citizen of the world, is evidence of Dr. Welch's great eminence. . . . Between 1878 and 1884, he first displayed his skill as a teacher. During those years at Bellevue Medical College, he made his reputation as one of the future leaders of modern pathological thought in America. . . . When that remarkable man, Daniel Coyt Gilman, began to select his new faculty for Johns Hopkins University, he picked out Dr. Welch as the man to help him develop a medical school which was to set new standards. Shortly thereafter, those other three eminent men, Osler, Halsted and Kelly, were asked to join Dr. Welch. . . . In 1910, he was elected President of the American Medical Association. His advice has been sought all over the country by countless institutions and, as a result, he has done more to advance medical education than any man alive or dead. He has been fearless in recommending entirely new methods in education. He first proposed the so-called full time system and advised that it be given a fair trial to see if it might not be a way of correcting evils that had crept into some American schools. But not content to rest on his laurels, he has devoted the years since to the development of the Johns Hopkins Institute of the History of Medicine, the first institute of the kind to be created in this country."

The Board of Curators of the University of Missouri relieved Dr. Stratton D. Brooks of the presidency of the State University by giving him a leave of absence until Dec. 31, 1930 and, in his place, elected Dean Walter Williams of the School of Journalism. Newspapers have paid this tribute to him: "There is but one Dean Williams. Dean he is by title, Dean by service and Dean by seniority in that service, and Dean by right he will remain."

TWENTY-FIVE YEARS AGO

Lt. Col. William J. Shaw, Fayette, has been made a Colonel. Col. Shaw is now serving in the South Pacific as head of the 29th Evacuation Hospital.—Maj. Jean J. Merz, St. Louis, has received the Purple Heart. He was wounded while stationed in Luxembourg during the German breakthrough.

Maj. Maxwell Glen Berry, Kansas City, has been promoted to a Lieutenant Colonel.—Lt. Col. Brian Blades, St. Louis, was among a group of chest surgeons credited in a War Department report with improving the technique of thoracic surgery. Col. Blades is in charge of the chest center at Walter Reed General Hospital.

Capt. Dar DeLos Stofer, Kansas City, a chief of the medical service at the Corvallis Naval Hospital, has been awarded a commendation "For meritorious and efficient performance of duty as chief of medical service and later as an executive officer of a fleet hospital in the South Pacific area from June 5 to December 8, 1944."

House Bill No. 138, introduced by all representatives from Jackson County and Dr. J. A. Gray of Atchison County, provides that the Board of Curators of the University of Missouri shall establish a four-year school of medicine at the University of Missouri, the last two years to be established in Kansas City. After the bill had been killed by the House Committee on University, it was voted upon favorably by the Committee of the Whole House. House Bill No. 206, introduced by Representatives J. A. Gray of Atchison County and A. F. Wagner of Wayne County, is a bill to provide that anyone using the prefix "Doctor" or "Dr." shall affix suitable words or letters after his name designating the degree held or stating the type of practice in which he is engaged. The bill applies to doctors of medicine, dentists, osteopaths, chiropractors and such. The bill has passed the House and has been reported "Do Pass" by the Senate Committee on Criminal Jurisprudence.

TEN YEARS AGO

The American College of Obstetricians and Gynecologists elected Dr. A. N. Arneson, St. Louis, treasurer at a meeting in Cincinnati, Ohio on April 4.

The April meeting of the West Central Missouri Medical Society was held at the Country Club in Nevada on April 14. Following the social hour, those usual delicious Nevada Country Club steaks were enjoyed by all. After the dinner, Dr. Mark Marks spoke on an interesting and timely subject, "The Acute Ano Rectal Problems of General Office Practice." Dr. Marks is a teacher of medicine and always makes a splendid talk on his subjects.

Dr. Geroge L. Curran, Associate Professor of Internal Medicine at St. Louis University, delivered the 12th Alphonse M. Schwitalla Lecture on April 21. The lecture, sponsored by the Alpha Omega Alpha Honorary Medical Society, is held each year in conjunction with initiation into the Society.

Dr. W. Stanley Hartroft, professor and head of the department of pathology, at Washington University, will be a visiting professor at the Institute of Biology and Experimental Medicine in Buenos Aires, Argentina, during September and October. Dr. Severo Ochoa, New York University biochemist and 1959 Nobel Prize Laureate, delivered the third annual Philip A. Shaffer Lecture in May. He discussed the enzyme system for RNA synthesis he developed and for which he was awarded the Nobel Prize in medicine and physiology. He shared the 1959 Nobel honors with Dr. Arthur Kornberg of Stanford University, former professor and head of the department of microbiology at Washington University.

UNIVERSITY OF MARYLAND

In Memoriam

Vail, A. Denton, M.D., Springfield, a graduate of the University of Kansas, 1935; member of Greene County Medical Society; aged 69; died March 19, 1970.

Rawlins, Kelly, M.D., Holden, a graduate of the University of Louisville, 1935; member of Johnson County Medical Society; aged 65; died March 31, 1970.

Kyner, Thomas A., M.D., Kansas City, a graduate of the National University of Arts & Sciences, 1916; member of Jackson County Medical Society; aged 79; died April 1, 1970.

Thomas, Forrest, M.D., St. Joseph, a graduate of the University of Minnesota, 1909; member of Buchanan County Medical Society; aged 88; died April 1, 1970.

Weinsberg, William C., M.D., St. Louis, a graduate of St. Louis University, 1923; member of St. Louis Medical Society; aged 74; died April 4, 1970.

Thomas, Charles S., M.D., St. Louis, a graduate of St. Louis University, 1909; member of St. Louis Medical Society; aged 87; died April 7, 1970.

Martin, Wilfred E., M.D., Odessa, a graduate of Washington University, 1921; member of Lafayette-Ray County Medical Society; aged 78; died April 10, 1970.

Meyer, Curtis A., M.D., St. Louis, a graduate of St. Louis University, 1929; member of St. Louis Medical Society; aged 65; died April 13, 1970.

Hanlon, Russell C., M.D., St. Louis, a graduate of the University of Michigan, 1955; member of St. Charles-Lincoln County Medical Society; aged 40; died April 18, 1970.

CLASSIFIED ADS

PSYCHIATRIST—Large VA Hospital, Kansas City Metropolitan area, nondiscrimination in employment. Write Chief of Staff VA Center, Wadsworth, Kansas 66089.

PHYSICIAN—Would like to relieve or assist busy practitioner evenings or weekends in St. Louis or surrounding area. Age, 37 years. Ten-years' experience in general practice. Presently in training. Contact Box 364, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

GENERALIST—For a group in St. Louis County. Privileges at four hospitals with no OB. Free time available. Excellent salary leading to early partnership. All the cultural advantages of St. Louis and medical educational facilities of two medical schools available. Contact Box 358, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

FAMILY MEDICINE—Department expansion is imperative, so the Medical Arts Clinic is looking for general practitioners, internists or pediatricians who want to practice improved medicine in an excellent community hospital environment in one of Missouri's nicest small towns located in the scenic Ozark foothills one hour south of St. Louis. High salary. Early partnership. Please contact C. W. Chastain, M.D., Medical Arts Clinic, Farmington, Missouri 63640.

ELEVEN ROOM OFFICE—For rent in large Missouri city. Across from large hospital. Completely equipped. Option to buy office, general and surgical equipment. Write to Box 353, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

UROLOGIST—Seeking a board eligible or board certified urologist to join an active urological practice. University affiliation available. Contact E. M. Cannon, M.D., 607 N. Grand Blvd., St. Louis, Mo. 63103.

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INTERNIST AND GENERAL PRACTITIONER—To associate with group of seven physicians representing the major specialties. Top salary two years, then partnership. Two accredited hospitals. Good recreation opportunities and time off. Historic town of 20,000 population on Mississippi River. Contact Box 357, Missouri State Medical Association, 515 East High St., Jefferson City, Mo. 65101.

TIRED OF SOLO RAT-RACE—Need assistant or associate in practice, primarily surgical, some general practice. Financial arrangements open. W. Russell Smith, M.D., F.A.C.S., Carthage, Mo. 64836.

PSYCHIATRIST—Large VA Hospital, Kansas City metropolitan area. Nondiscrimination in employment. Write Chief of Staff, VA Center, Wadsworth, Kansas 66089.

MEDICAL BUILDING—For sale. Excellent, well-equipped building for medical practice. All large rooms—waiting room, three examining rooms, room for minor surgery and another room for physical therapy and laboratory work. One large office and two small offices. Also includes dental suite. Located in attractive Missouri town of 1,200 in scenic valley with several lakes nearby. Four hospitals within 25 miles. Terms can be arranged. Write Box 363, Missouri State Medical Association, Box 1028, Jefferson City, Mo. 65101.

EXCELLENT OPPORTUNITY—For one general surgeon, one general practictioner and one urologist to work a regular 40-hour week with 30 days paid vacation, 9 paid holidays, accumulate 15 days sick leave and participate in an excellent retirement plan and life and health insurance. Salary $17,000 to $25,000 with regular increases. Ideal recreation area with fishing, hunting and boating. 228-bed general medical and surgical veterans hospital, Poplar Bluff, Mo. 63901. Please call collect: Dr. F. F. Bechtold, Chief of Staff, Area Code 314-785-4651.

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LEGISLATURE OKS MEDICAL SCHOOL

The 75th Missouri General Assembly, meeting in its third special session from mid-April to mid-June, approved a $4,126,100 appropriation for the state's share of construction funds for the new University of Missouri Medical School, Kansas City. The fund grant will assure construction of the school. As of June 18 the bill had not been signed by the Governor.

At the same time, members of the Legislature voted a $3 million cut in Medicaid funds for the next fiscal year which will mean a cut of approximately an additional $3 1/2 million in federal funds and a 12 per cent reduction in the program's money for fiscal 1970-71.

The General Assembly voted to correct the language of the intoxicated driver test bill which has proven tough to enforce but left the definition of intoxication at .15 milligrams of alcohol per 100 milliliter of blood instead of the .10 definition supported by the Missouri Safety Council and MSMA.

Also approved was a measure calling for the licensing of nursing home administrators under their own separate board. The legislation was made necessary by a federal regulation and failure to approve licensing would have meant the loss of some federal Medicaid funding.

Failing to pass during the session was a so-called model drug abuse law which failed to pass the House after being amended.

Vernon E. Wilson, M.D.

Dr. Wilson Is Named To Federal Post

Vernon E. Wilson, M.D., vice president for Academic Affairs for the University of Missouri, has been named administrator of the Health Services and Mental Health Administration, the federal agency that operates Medicaid and the Regional Medical Programs.

Dr. Wilson succeeds Joseph English, M.D., who resigned to head the new corporation that will administer New York City's Municipal hospitals and health services.

A pharmacologist, Dr. Wilson was named dean of the University of Missouri Medical School in 1959, became the school's executive director for health affairs in 1967 and vice president in 1968. He is the former coordinator of Missouri Regional Medical Program.

Dr. Wilson is an active member of the Missouri State Medical Association and a member of the AMA's Council on Medical Education and of the Liaison Committee on Medical Education.

He received his M.D. degree from the University of Illinois.

Attorney General Says Citizenship Rule Is Invalid

Missouri Attorney General John C. Danforth on May 22, 1970 issued an opinion that the provision of Section 334.031 RSMo 1959 which requires that candidates for licenses as physicians and surgeons in the State of Missouri shall be citizens of the United States is unconstitutional.

The opinion was sought by Rep. Thomas Graham of Jefferson City.

The Missouri State Medical Association House of Delegates adopted a resolution at the 1970 Annual Session calling for the removal of the citizenship requirement for licensure.

On June 1, Attorney General Danforth issued an opinion reaffirming that Pathology is a branch of the practice of medicine within the provisions of Chapter 334, RSMO., and a profession under the jurisdiction of the State Board of Registration for the Healing Arts Board, and that an individual must be licensed by the Board before he can lawfully practice Pathology. The opinion also stated that prosecuting and circuit attorneys have the responsibility for criminal prosecutions arising out of violations of the law.

Honor Graduates Are Named

Missouri State Medical Association President Joseph L. Fisher, M.D., St. Joseph, has announced the names of the recipients of the three Honor Graduate Awards presented each year by the Association to outstanding graduates of medical schools in Missouri.

The award winners include Wilfred Welby Cox of the University of Missouri-Columbia; Thomas Francis Barrett of St. Louis University and Alexander L. Miller, Washington University.

Each of the honor winners received a $100 United States Savings Bond as well as a certificate from the Missouri State Medical Association.

MSMA News

UNIVERSITY OF MARYLAND

President's Message

On May 25 at a meeting of the 8th Councilor District we were told that the American Medical Association is beginning to plan for a visible, on-going Public Relations program to show and tell the "best side" of the medical profession to the public.

It was indicated that professionals are being employed to make films and documentaries as well as news releases of various kinds to be placed before the public at regular intervals. Business and industry constantly and repeatedly bring their factual programs before the public eye in order to create a positive image. We must do the same. No big business relies on just one or two advertisements to sell products.

Joseph L. Fisher, M.D.

Perhaps CBS has done us a favor in stimulating us to start something we should have begun 15 years ago.

WHAT ABOUT THE COST OF SUCH A PROGRAM AND AMERICAN MEDICAL ASSOCIATION DUES?

Certainly, these dues have to go up. You cannot advertise, buy prime time on the national television networks and carry on other such programs for peanuts. As I write this message early in June, I note that the AMA House of Delegates is to vote on an $80 dues increase at the Chicago meeting. It is my hope that such an increase is approved. This $80 could be the best investment that we as physicians have ever made for the future good of our profession. You can't afford it? Hog Wash! You cannot afford not to afford this one!

As I mentioned above, the "Singing Doctors" Councilor District held a meeting at Springfield recently and had as their prime attraction Dr. Richard Wilbur, the Assistant Executive Vice President of the AMA. Dr. Wilbur made a fine speech which stimulated a lengthy question and answer session on the part of approximately 200 who attended the dinner meeting.

The day's activities were superbly planned by Councilor Dr. Howard McAlhany and the Greene County Medical Society officers and staff. There was excellent press and television coverage which began at the airport upon Dr. Wilbur's arrival and continued through a good part of the day so that three different network outlet stations carried his interviews - all of which were pointed toward improving medicine's public image.

Dr. Wilbur gave a very informative and impressive presentation which favorably influenced all who heard him on the subject of "What AMA is doing for me!" I share the feeling of many who attended this meeting that we are ably represented by Dr. Wilbur.

Mrs. William M. (Pat) Walker, the State Auxiliary President, had a most stimulating message for the Doctors' wives. She laid it on the line about the Doctors' wives' responsibilities and opportunities to improve medical public relations at home. Congratulations, Pat.

Things are really moving in Springfield. Kansas City is not the only place where folks are "up-to-date."

The Singing Doctors have some new songs. You should get their latest record. When you come home from the office at the end of a long day, "fed up with it all" and need a good laugh, this record will relax you better than a "bubble durban!"

Minutes of the

112th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

House of Delegates

Muehlebach Hotel, Kansas City

April 2-5, 1970

FIRST SESSION

Thursday, April 2, 1970

The First Session of the House was called to order at 1:30 PM in the Colonial Ballroom with Paul F. Max, Speaker, presiding. The following officers, councilors and delegates were present during the 112th Annual Session:

Officers

President	Doyle C. McCraw, Bolivar
President-Elect	Joseph L. Fisher, St. Joseph
Vice-President	Walter W. Tillman, Springfield
Vice-President	Charles H. Lewellen, Louisiana
Vice-President	Dillard M. Eubank, Kansas City
Secretary	John I. Matthews, Jefferson City
Treasurer	Max S. Franklin, St. Louis
Speaker of the House	Paul F. Max, St. Louis
Vice-Speaker of the House	E. D. Imes, Maryville

Councilors

1st District	John N. Martin, St. Joseph
3rd District	Walter T. Gunn, St. Louis
4th District	Robert A. Mayer, Clayton
5th District	James C. Cope, Columbia
6th District	William D. Bradshaw, Clinton
7th District	Gerald L. Miller, Kansas City
8th District	Howard J. McAlhany, Springfield
9th District	E. A. Stricker, St. James
10th District	Eugene T. Hansbrough, Poplar Bluff

DELEGATES

First District

Andrew	Warren C. Baker, Savannah
Buchanan	Richard V. Riddell, St. Joseph
Buchanan	John T. Rogers, St. Joseph
Buchanan	William B. Rost, St. Joseph
Clay	Phillip E. King, Liberty
Clay	William R. McPhee, N. Kansas City
Clay	Truman B. Schertz, N. Kansas City
Clinton	L. A. Ozenberger, Plattsburg
Grand River	
Caldwell	Frank R. Daley, Hamilton
Grundy	Albert D. Cross, Trenton
Harrison	Merriam Gearhart, Bethany
Linn	John R. Dixon, Brookfield
Mercer	Windsor B. Atcheson, Trenton
Northwest	
Gentry	Troy O. Morgan, Jr., Albany
Nodaway	E. D. Imes, Maryville
Worth	Frank B. Matteson, Grant City

Second District

Chariton-Macon-Monroe-Randolph	Floyd A. Barnett, Paris
Chariton-Macon-Monroe-Randolph	Donald E. Eggleston, Macon
Chariton-Macon-Monroe-Randolph	Robert Tompson, Moberly
Lewis-Clark-Scotland	Landis Y. Davis, Canton
Marion-Ralls-Shelby	Thomas J. Fischer, Hannibal
Marion-Ralls-Shelby	James K. Mann, Hannibal
Marion-Ralls-Shelby	Albert Grant, Hannibal
Pike	C. H. Lewellen, Louisiana

Third District

St. Louis City	S. F. Bowen, Jr., St. Louis
St. Louis City	Richard V. Bradley, St. Louis
St. Louis City	Helen L. Bruce, St. Louis
St. Louis City	Kenneth Bruns, St. Louis
St. Louis City	Marshall B. Conrad, St. Louis
St. Louis City	Thomas J. Cooper, St. Louis
St. Louis City	Mark D. Eagleton, St. Louis
St. Louis City	Joseph C. Edwards, St. Louis
St. Louis City	Robert H. Felix, St. Louis
St. Louis City	Lee T. Ford, St. Louis
St. Louis City	Max S. Franklin, St. Louis
St. Louis City	Paul L. Friedman, St. Louis
St. Louis City	August W. Geise, Jr., St. Louis
St. Louis City	Charles R. Gulick, St. Louis
St. Louis City	George L. Hawkins, Jr., St. Louis
St. Louis City	Charles A. Jost, St. Louis
St. Louis City	Donald R. Judd, St. Louis
St. Louis City	Robert W. Kelley, St. Louis
St. Louis City	David N. Kerr, St. Louis
St. Louis City	Lawrence M. Lawton, St. Louis
St. Louis City	J. Eugene Lewis, Jr., St. Louis
St. Louis City	Francis X. Lieb, St. Louis
St. Louis City	William C. MacDonald, St. Louis
St. Louis City	Paul F. Max, St. Louis
St. Louis City	Arthur W. Neilson, St. Louis
St. Louis City	F. Eugene Pemington, St. Louis
St. Louis City	Hubert A. Ritter, St. Louis
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St. Louis City	William L. Smiley, St. Louis
St. Louis City	William Stoneman, III, St. Louis
St. Louis City	Joseph B. Vacca, St. Louis
St. Louis City	Leo L. Wacker, St. Louis
St. Louis City	Herbert C. Wiegand, St. Louis
St. Louis City	Carol F. Williams, St. Louis
St. Louis City	Edwin Wolfgram, St. Louis
St. Louis City	Richard W. Yore, St. Louis

Fourth District

Franklin-Gasconade-Warren	Harold F. Hoelscher, Warrenton
Franklin-Gasconade-Warren	William R. Richardson, Union
Franklin-Gaslonade-Warren	George Workman, Hermann
Jefferson	Harold Donnell, De Soto
St. Charles-Lincoln	Louis P. Hetlage, Troy
St. Charles-Lincoln	Paul Rother, St. Charles
St. Louis County	C. Read Boles, St. Louis
St. Louis County	Rudolph Catanzaro, St. Louis
St. Louis County	C. Howe Eller, St. Louis
St. Louis County	Allen Klippel, St. Louis
St. Louis County	Jules H. Kopp, St. Louis
St. Louis County	Paul Miles, St. Louis
St. Louis County	James Nakada, St. Louis
St. Louis County	Frederick Peterson, St. Louis
St. Louis County	Melvin Schwartz, St. Louis
St. Louis County	James Sisk, St. Louis
St. Louis County	Richard Sutter, St. Louis
St. Louis County	Frank J. Valach, St. Louis
St. Louis County	Miles Whitener, St. Louis
St. Louis County	Paul Whitener, St. Louis
St. Louis County	Mardonio J. R. Yap, St. Louis

Fifth District

Audrain	H. Peter Ekern, Mexico
Boone	John T. Logue, Columbia
Boone	B. A. Moranville, Columbia
Boone	William B. See, Columbia
Boone	Hugh E. Stephenson, Jr., Columbia
Boone	John H. Walters, Columbia
Boone	George P. Wilson, Columbia
Callaway	George Wood, Fulton
Cole	Robert Bregant, Jefferson City
Cole	Robert Tanner, Jefferson City
Cole	Byron Watts, Jefferson City
Cooper	Byron M. Stuart, Boonville
Howard	W. A. Bloom, Fayette
Morgan	Robert R. Lyle, Versailles

Sixth District

Henry	Richard King, Clinton
Johnson	A. L. Folkner, Warrensburg
Lafayette-Ray	Joseph S. Cope, Lexington
Lafayette-Ray	Charles T. Riley, Richmond
Pettis	C. Gordon Stauffacher, Sedalia
Saline	C. A. McBurney, Slater
West Central	
Cass	Alfred Eklund, Pleasant Hill
Cedar	Robert Magee, Eldorado Springs
St. Clair	Don Giesler, Osceola
Vernon	James J. Pascoe, Nevada

Seventh District

Jackson	Raymond B. Anderson, Kansas City
Jackson	Pat A. Barelli, Kansas City
Jackson	Hector W. Benoit, Jr., Kansas City
Jackson	Robert W. Forsythe, Kansas City
Jackson	Fred D. Fowler, Kansas City
Jackson	John A. Griffith, Jr., Kansas City
Jackson	Blaine Z. Hibbard, Kansas City
Jackson	Kenneth C. Hollweg, Kansas City
Jackson	Richard J. Lanning, Kansas City
Jackson	R. Stacy Long, Kansas City
Jackson	George J. Lytton, Kansas City
Jackson	Andrew McCanse, Kansas City
Jackson	Victor G. McDonald, Kansas City
Jackson	Wallace P. McKee, Kansas City
Jackson	William C. Mixson, Kansas City
Jackson	Samuel A. Montello, Kansas City
Jackson	Carl M. Peterson, Kansas City
Jackson	Sidney Rubin, Kansas City
Jackson	Robert A. Slickman, Kansas City
Jackson	O. Dale Smith, Mission, Kansas
Jackson	Donald M. Spencer, Kansas City
Jackson	Walter J. Stelmach, Kansas City
Jackson	Raymond W. Stockton, Kansas City
Jackson	Edward H. Stratemeier, Kansas City
Jackson	Wayne K. Tice, Independence
Jackson	Charles B. Wheeler, Jr., Kansas City
Jackson	C. Keith Whittaker, Kansas City

Eighth District

Greene	Dallas Anthony, Springfield
Greene	M. D. Bonebrake, Springfield
Greene	James T. Brown, Springfield
Greene	Robert Maher, Springfield
Greene	Stanley Peterson, Springfield
Greene	William Walker, Springfield
Jasper	Ned B. Chase, Jr., Joplin
Jasper	John R. Esther, Joplin
Jasper	Herbert J. Schmidt, Joplin
Ozarks	
Barry	Mary Merideth, Cassville
Lawrence	Kenneth Glover, Mount Vernon
McDonald	Leo Taylor, Neosho
Newton	Paul B. Anderson, Neosho
Stone	F. L. Wommack, Crane
Taney	Allen H. Moore, Jr., Branson
Webster	T. M. Macdonnell, Marshfield
Mid-Missouri	
Dent	B. J. Bass, Salem
Douglas	Stanley B. Roper, Mount Vernon
South Central	
Howell	W. T. Morgan, West Plains
Laclede	Rae W. Froelich, Lebanon
Oregon	C. W. Cooper, Thayer
Ozark	Rollin Smith, West Plains
Texas	Joe Wall, Houston
Wright	James Hasek, Mountain Grove

Tenth District

Butler-Wayne-Ripley	Richard V. Camp, Jr., Poplar Bluff
Butler-Wayne-Ripley	George H. Ladyman, Poplar Bluff
Cape Girardeau	Edwin K. Burford, Jr., Cape Girardeau
Cape Girardeau	Melvin C. Kasten, Cape Girardeau
Mineral Area	
Iron	Robert Dettmer, Ironton
Madison	Retus Osborn, III, Farmington
Reynolds	C. W. Chastain, Farmington

St. Francois . . . . . Richard A. Fraser, Bonne Terre
Washington . . . . Kirby Turner, Potosi
SEMO
New Madrid . . . . . Ernie Sandidge, New Madrid

The invocation was given by Association President, Doyle C. McCraw.

The Chairman of the Credentials Committee, Dr. William C. Mixson, reported that satisfactory credentials had been presented by seven officers, nine councilors and 102 delegates. He informed the House that this number of delegates constitutes a quorum and dispensed with a roll call.

Dr. Gerald L. Miller, Chairman of the General Arrangements Committee, welcomed the Association members and their wives and guests to the 112th Annual Session and expressed the hope for a successful meeting.

The minutes of the 111th (1969) Annual Session, which were published in the July, 1969 issue of Missouri Medicine, were approved as published.

The Speaker announced appointment of the following reference committees and presented his instructions to the committees:

ON REPORTS OF OFFICERS

Frank Matteson, Grant City, Chairman
Hubert A. Ritter, St. Louis
George Lytton, Kansas City
Robert Bregant, Jefferson City
L. P. Hetlage, Troy

ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

Blaine Z. Hibbard, Kansas City, Chairman
W. T. Morgan, Jr., West Plains
James Pascoe, Nevada
William L. Macon, Jr., St. Louis
C. W. Chastain, Farmington

ON MISCELLANEOUS AFFAIRS

B. J. Bass, Salem, Chairman
Albert Grant, Hannibal
Ned B. Chase, Jr., Joplin
Marshall Conrad, St. Louis
Robert Slickman, Kansas City

ON RESOLUTIONS

James Sisk, St. Louis County, Chairman
Wilson Ferguson, Sikeston
T. M. Macdonnell, Marshfield
John Logue, Columbia
Charles Jost, St. Louis

ON MEDICAL EDUCATION AND PUBLIC WELFARE

M. D. Bonebrake, Springfield, Chairman
Edward Stratemeier, Kansas City
Carol F. Williams, St. Louis
Albert Cross, Trenton
Edwin Burford, Cape Girardeau

Dr. Paul F. Max, Speaker of the House of Delegates, declares the 112th Annual Session of the Missouri State Medical Association open as he calls the first session of the House of Delegates to order. Dr. Max served as Speaker of the House at the 110th, 111th and 112th Annual Sessions.

ON NECROLOGY

H. Peter Ekern, Mexico, Chairman
Harold Hoelscher, Warrenton
Donald Eggleston, Macon
Paul Anderson, Neosho
Carl M. Peterson, Kansas City

COMMITTEE "H"

Robert Kelley, St. Louis, Chairman
Fred Fowler, Kansas City
Joseph Cope, Lexington
Phillip King, Liberty
Allen Klippel, St. Louis County

The Speaker called on Dr. McCraw to deliver the annual President's Message.

(The President's Message is published on Page 455.)

The Speaker then called on Dr. Joseph L. Fisher to present the annual message of the incoming President.

(Dr. Fisher's address is published on Page 457.)

(Both Presidential messages were referred to the Committee on Reports of Officers.)

The Speaker then invited Mrs. James A. Reid to present the annual report of the President of the Woman's Auxiliary.

(This report is published on Page 461.)

(Mrs. Reid's report was referred to the Committee on Reports of Officers.)

The Speaker invited Mrs. Zelma Jansen, President of the Missouri State Medical Secretaries and Assistants Society, to address the House. Mrs. Jansen reviewed the origin and history of the MSMSAS and discussed the goals and high standards of both the state society and national association. She also described their educational

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programs and training workshops. She urged physicians to encourage their secretaries and assistants to join MSMSAS and take advantage of its programs by paying their dues for them.

(Mrs. Jansen's report was referred to the Committee on Reports of Officers.)

Reports of Officers, Committees and Council

The Speaker stated that the reports of Officers, Committees and Council were published in the booklet of "Official Reports to the House of Delegates" and referred the reports to appropriate reference committees. He also asked for any supplementary reports from Committee Chairmen. There were no supplementary reports. However, the Speaker announced that Clay County Medical Society had withdrawn its Resolution #11.

The Speaker then requested any supplementary reports of the Council. He referred the various subjects within the Supplementary Report of the Council to appropriate Reference Committees. (This Report is published on Page 473.)

The Reports of the Officers, Committees and Council are as follows:

REPORT OF THE SECRETARY

The Missouri State Medical Association had 4,150 members as of December 31, 1969. This was an increase of 52 members over the previous year.

MEMBERSHIP CHANGES DURING THE YEAR

Members, January 1, 1969		4,098
New Members admitted during year	176	
Reinstated	14	
Total added	190	
Members dropped during year	21	
Deceased	65	
Transferred to other states	35	
Resigned	17	
Total lost	138	
Net gain		52
Members, December 31, 1969		4,150

The Committee on Nominations, which is appointed by the President from the House of Delegates, must submit nominations for the following offices:

—Three Vice-Presidents to fill the expired terms of Walter W. Tillman, Springfield; Dillard M. Eubank, Kansas City; and Charles H. Lewellen, Louisiana.

—A Speaker of the House of Delegates and a Vice-Speaker of the House of Delegates to fill the expired terms of Paul F. Max, St. Louis, Speaker; and E. D. Imes, Maryville, Vice-Speaker.

—The By-Laws of the Association provide that the Speaker and Vice-Speaker shall not serve more than three consecutive terms. The present Speaker and Vice-Speaker at the close of the 1970 Annual Session will have served three consecutive terms in their respective offices.

—Two Delegates and corresponding Alternates to the American Medical Association to fill the vacancies created by the expiration on December 31, 1970, of the terms of Delegate, Stanley S. Peterson, Springfield; Alternate, James C. Sisk, Clayton; Delegate, J. Loren Washburn, Versailles; and Alternate, Rae W. Froelich, Lebanon.

The terms (two years) of the Councilors of the odd-numbered districts expire this year. These Councilors are John N. Martin, St. Joseph, First District; Walter T. Gunn, St. Louis, Third District; James C. Cope, Columbia, Fifth District; Gerald L. Miller, Kansas City, Seventh District; E. A. Stricker, St. James, Ninth District. Delegates from these districts shall meet during the meeting, prior to the last day, and elect the Councilor for their district. The election shall be certified to the House of Delegates on a prescribed form which will be furnished.

The entire session will be held in Hotel Muehlebach, Kansas City. The House of Delegates will hold its first session on Thursday, April 2, at 1:30 PM in the Colonial Ballroom. Reference Committees will meet in committee rooms in the hotel. The second session of the House of Delegates will convene at 4:00 PM, Friday, April 3, in the Colonial Ballroom. The final session of the House, a breakfast meeting, will be held in the Colonial Ballroom of the hotel at 7:30 AM, on Sunday, April 5.

Registration facilities will be open on Thursday, April 2, from 11:00 AM to 4:00 PM, on Friday and Saturday from 8:00 AM to 5:00 PM, and on Sunday from 7:30 AM to 9:00 PM. Registration will be in the Royal Hall of the new Convention Area of the hotel.

John I. Matthews, Secretary

REPORT OF THE TREASURER

The report of the Treasurer is covered in the Financial Statement which appeared in the March issue of Missouri Medicine and is included in the Delegates Handbook. Therefore, it is not repeated here.

Max S. Franklin, Treasurer

REPORT OF THE EXECUTIVE SECRETARY

Your Headquarters Staff has worked diligently during the past year, under the direction of the Council and Officers and various committees, on the many activities of the Association.

The 1969 session of the Missouri General Assembly considered an unusually large number of bills of special interest to the medical profession. These were all closely followed by your Association's Legislative Matters Committee and members of the MSMA Staff. In addition, some 45 witnesses were secured for 30 hearings on medically-oriented bills during the session and continuous liaison was maintained with members of the Legislature. A report of the Legislative Matters Committee is presented elsewhere in this booklet.

The third County Medical Society Officers' Conference, sponsored by the MSMA Public Service Committee, was held in Jefferson City on January 31 and February 1, 1970.

The Council requested the Constitution and Bylaws Committee to present proposed changes in the committee structure in the Association's Bylaws, in conformity with recommendations of the Long-Range Planning Committee, to the Council for consideration by this House of Delegates. These proposed changes will be presented in your Handbook and not in this booklet of official reports.

The Interspecialty Committee has been charged by the Council to further study the new level of practitioner proposal and present specific recommendations for the development and activation of such a program.

The Council has appointed a small Ad Hoc Committee to study and recommend to the Council a practical and workable peer review mechanism which may be adopted by MSMA.

Your Medical-Legal Committee is working to come up with practical proposals for effectively assisting in handling the increasing problems in the field of Professional Liability.

At the Clinical Meeting of the AMA in Denver, November 30 to December 3, the House of Delegates reviewed a report of the Committee on Planning and Development which outlined proposals for revamping the organizational structure of the AMA as well as presenting recommendations concerning long-range objectives, resources and programs of the Association. The House directed that this report be transmitted to constituent state medical societies for such specific actions by their governing bodies as they deem warranted, it being understood that any resolutions from state societies so generated be considered at the 1970 Annual AMA Convention.

A copy of this AMA report is included in your Handbook, along with recommendations of the Council of MSMA on this matter.

Other committees of the Association are working on equally important projects and their reports are presented elsewhere in this booklet.

Raymond McIntyre, Executive Secretary

(Referred to Reference Committee on Reports of Officers.)

REPORT OF THE COMMITTEE ON SCIENTIFIC AND POSTGRADUATE WORK

The primary function of this Committee is to plan, develop and present the scientific program at the MSMA Annual Session. The Committee feels that this year's program, which includes a large number of panel discussions and symposia, will attract broad interest of the Association membership.

The cooperation from statewide specialty groups, our three Missouri medical schools, Regional Medical Programs, specific Committees of the Association and other organizations in developing and presenting particular parts of the two-day scientific program merits the appreciation of all MSMA members. The official program will specifically note these groups to whom we are so indebted.

A number of special-group luncheon sessions will be held in addition to a genreal luncheon on Friday, April 3 and on Saturday, April 4 during the meeting.

The Committee, working with the Association's office staff, is trying this year to measurably improve our efforts in promoting greater attendance at all sessions of the 1970 Annual Meeting Scientific Program.

Throughout the year, the Committee, with the assistance of the Executive Office Staff, has continued to assist county medical societies in planning joint meetings and in obtaining speakers for such meetings, as well as for regular component society meetings.

The Committee wishes to sincerely thank those physicians who have appeared on the many scientific continuing medical education programs given in Missouri since our last Annual Session.

Specific recommendations of the Committee included in the report of the second Committee meeting for the year, namely on November 23, 1969, are shown below and were approved by the MSMA Council in session on December 13-14, 1969.

1. It was recommended that the Association not offer

Dr. William C. Mixon, Chairman of the Credentials Committee, reported a quorum of Delegates present at the opening session of the House of Delegates. In their subsequent proceedings, the Delegates introduced what is believed to be a record number of resolutions relating to the practice of medicine and in the interest of state and national health care problems and programs prevailing today.

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to pay expenses or honorarium to Association members for participation on the Scientific Program at annual meetings, and it was further recommended that any communications with speakers make this policy clear.

2. A modest honorarium be paid to out-of-state speakers per each day a speaker participates as a scheduled speaker, plus expenses.

3. The Scientific and Postgraduate Work Committee recognizes the great importance of MSMA leadership in the organization of a program which will concentrate on ascertaining needs of Association members in the field of continuing medical education and the meeting of these needs. Our Committee could work in this field or another appropriate group might be named by the Council. The Committee believes the implementation of an overall program in the field of continuing education has great urgency.

Richard W. Yore, Chairman
John I. Matthews
J. F. McDonnell
Edward D. Kinsella
M. Pinson Neal
E. D. Imes
Glenn O. Turner
W. Thomas Morgan, Jr.
Paul H. Rother
Charles P. McGinty
T. J. Fischer
Paul R. Young
Roy W. Pearse, Jr.
Richard V. Camp, Jr.

(Referred to Reference Committee on Medical Education.)

REPORT OF THE PUBLICATION COMMITTEE

The 66th volume of Missouri Medicine was completed with the publication of the December, 1969 issue. During the year, 13 issues were printed and distributed. Eleven of these issues contained scientific papers, special articles, organizational reports, monthly messages from the Presidents of the Association and Auxiliary and news and other items of interest to the medical profession. The July 1 issue contained the official proceedings of the 1969 Annual Session of the MSMA House of Delegates. The July 15 issue was the annual Membership Directory.

There were two special issues of the Journal. The scientific articles in one were contributed by members of the faculty of the University of Missouri School of Medicine and in the other by members of the staff of Ellis Fischel State Cancer Hospital.

During the year, 59 scientific papers and 14 special articles were published. Most of them were written by Missouri authors. The Editors wish to express appreciation to all authors who submitted scientific manuscripts and to all other individuals, institutions and organizations, including the administrations, faculties and publications departments of the University of Missouri, St. Louis University and Washington University Schools of Medicine and Ellis Fischel State Cancer Hospital for their valuable contributions.

At the year's end, the Journal circulation was approaching 4,900.

Due to increased production, paper and labor costs, it was necessary for Mr. Ovid H. Bell of The Ovid Bell Press, Inc. in Fulton to propose an increased price schedule for printing and production to begin with the March, 1970 issue of Missouri Medicine.

Proposals from two additional reputable printers were requested, received and studied. It was determined that it would be financially advantageous to retain the services of The Ovid Bell Press. In addition to this advantage, the decision included consideration of the long association with The Ovid Bell Press, the high quality of their production and the special cooperation and assistance received from Mr. Bell and his staff.

In an effort to offset the higher production cost and the decrease in advertising revenue in 1969, the rates for advertising in Missouri Medicine were increased. The decrease in advertising revenue has occurred since 1968 due to a continuing decline in national pharmaceutical advertising.

The complete financial report for the Journal is included in the financial statement for the Missouri State Medical Association for the year 1969. The report was published in the March, 1970 issue of Missouri Medicine and is included in the Delegates Handbook.

Joseph V. Finnegan, Chairman
William C. Mixson
Charles S. Sherwin
Byron M. Stuart
Wilfred Wooldridge

(Referred to Reference Committee on Reports of Officers.)

REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS

During the year 1969-1970, the Medical Economics Committee and the Interspecialty Committee, working together as the Medical Economics Contract Committee, have held two regular meetings. A subcommittee of the Contract Committee also handled a special assignment in relation to the Missouri Medicaid Program.

The proposals of the Medical Economics Contract Committee developed from meetings of the Committee and subcommittee were presented to the Council in its meetings of June 14, 15 and December 13, 14, 1969.

The Council minutes of its June and December meetings, published elsewhere in this booklet of Official Reports to the House of Delegates, include these proposals of the Committee and the Council's action pertaining thereto.

Two members of your Medical Economics Committee, the Chairman and Dr. Rae Froelich, and Ray McIntyre of the MSMA staff, represented the Association at a Regional Conference on Peer Review sponsored by the Council on Medical Service of the AMA in Chicago on October 5.

Herbert C. Wiegand, Chairman
G. W. Winn
A. Lester Saferstein
W. J. Ferguson
Rae W. Froelich
Gene A. Schillie
David G. Hall
A. P. Rowlette
Frank O. Richards
Charles Miller, Jr.
Miles C. Whitener
W. W. Tillman
Donald H. Giesler

(Referred to Reference Committee on Resolutions.)

REPORT OF COMMITTEE ON INTERSPECIALTY MEDICINE

The deliberations and actions of the Interspecialty Committee during the past year are reported through the minutes of the MSMA Council meetings.

Charles R. Gulick, Chairman

(Referred to Reference Committee on reports of Officers.)

REPORT OF COMMITTEE ON MATERNAL WELFARE

The Committee met at the time of the state meeting to approve the policy of doing clean operative procedures in the obstetrical delivery suite and to discuss cases of maternal deaths of special interest. Our guest for this luncheon meeting was Dr. George Gardner of Northwestern University, Chicago, Illinois. A quorum of the Committee was not present, but a mail ballot was conducted with approval of the surgical procedures in delivery suites.

The Committee again met on November 2 in Columbia with eight members and four guests present.

1. Recommendation for change in Missouri abortion laws were discussed at length and the following motion was approved by a seven to one vote: *The present abortion law should be repealed and changed to read "an abortion should be considered illegal if performed by anyone other than a licensed physician in a place other than a licensed hospital."*

2. The Committee again voted to strongly recommend that legislation be sponsored to provide for the immunity of the Maternal Mortality Committee, Tissue Committee and Medical Audit Committee studies in professional liability suits or other litigation.

3. A progress report was made by Dr. Robert Slickman on experiences with operative procedures in delivery suites. There has been no detectable increase in morbidity due to this procedure.

4. Dr. Monat's investigation into incorporating osteopathic maternal mortality statistics into the total statistics was reported. Only a few states, five by last report, attempt to incorporate these statistics and no method was indicated.

5. The deletion of the question "Was this patient pregnant or has she been pregnant in the last 90 days?" from the current Missouri death certificate has made the searching for maternal deaths incomplete and misleading as was predicted and a promise to restore this question on all certificates after January 1 has been made by the Bureau of Vital Statistics. The entire eastern half of the state had detected only four maternal deaths in the first ten months of this year.

6. Dr. Probst of St. Louis discussed a service proposed by St. Louis University. This service would give 24-hour consultation service by telephone to any doctor requesting it. Any complicated case would be accepted at Firmin Desloge Hospital on Dr. Dennis Cavanagh's service, and possibility of helicopter transportation is being considered.

7. Dr. Belden of the Division of Health discussed rubella vaccination, and the Committee recommended that the State Medical Association endorse community-wide vaccination of all children ages one to puberty.

8. The Maternal Welfare Committee has secured Dr. Keith Russell of Los Angeles, California to discuss Septic Shock of Obstetrical Patients at the annual state meeting at 11:00 AM on Friday, April 3 and be our guest discussant of maternal mortality cases at the noon luncheon the same day.

William B. See, M.D., Chairman
Walter German
Seymour Monat
Eugene G. Hamilton
Leonard A. Wall
C. G. Stauffacher
Edward M. Grim
William M. Walker
Edmund W. Kline
Paul E. Kratz
Paul F. Max
Harry V. Langeluttig, Jr.
Thomas H. McGuire
William F. McGinnis
Robert A. Slickman
Melvin M. Schwartz

(Referred to Reference Committee on Miscellaneous Affairs.)

REPORT OF THE COMMITTEE ON INFANT AND CHILD CARE

The Committee met jointly with the MSMA Committee on Maternal Welfare on May 18, 1969 in Jefferson City. The agenda included a discussion in detail of a community-wide program of mass rubella vaccination. Discussion included amount of vaccine available and age group to be vaccinated. The Missouri Division of Health will administer the serum available, mostly to youngsters covered by Head Start and the Well Baby Clinics. Problem and control of mass promotion by drug manufacturers was discussed. Concern was expressed, also, regarding stimulation of the medical profession to develop interest and support to a degree experienced in the mass polio vaccination program. The Missouri Division of Health agreed to keep the physicians over the state currently informed about the rubella program through a release in Missouri Medicine. The vaccination program developed to date was recommended for approval of the MSMA Council in session on June 14-15, 1969. The MSMA Council approved the report of the joint Committees. Subsequent developments in the vaccination program were recommended by the MSMA Committee on Maternal Welfare and presented to the Council for approval on December 13-14, 1969. The Maternal Welfare Committee recommendation was for MSMA endorsement of a community-wide program of mass rubella vaccination for children of age one to puberty. The Council accepted the report of the Maternal Welfare Committee.

The agenda also included a report from the Missouri Division of Health on the implementation of the PKU Law reporting patient statistics and respective costs.

Revision of the form used by the Bureau of Vital Statistics was discussed. It was agreed, thereafter, that a question which was deleted should be restored to this form. The question, "was this patient pregnant or has she been pregnant in the last ninety days," will be restored to the Bureau Death Certificate after January 1, 1970.

The Infant and Child Care Committee Chairman represented the Committee and MSMA at the 12th National Conference on Physicians and Schools on October 8-11, 1969 in Chicago. The Conference Theme was

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"Youth and Today's Environment" and was sponsored by the AMA Department of Health Education.

The Committee is continuing to work in liaison with the Missouri Department of Education pursuant to the introduction of a full health course in the public school curriculum as approved by the 1966 MSMA House of Delegates.

On January 15, 1970, Mr. Robert Taylor, Missouri Department of Education, reported that sample written tests were being distributed to 5,000 students in 47 different school districts in Missouri at the sixth, ninth and 12th grade levels. The tests were prepared using national health education standards, and the completed tests will be compared, also, with national standards. The purpose is to determine the type of results of health education courses now being taught and the type of courses to be offered throughout the public school system in Missouri. Final computation of this portion of the study is expected to be available about April 1, 1970.

Guy N. Magness, Chairman
E. J. Schwartz
James K. Mann
Francis X. Lieb
James A. Kinder
Willard B. Avery
James Burkeholder
Barbara E. Russell
Richard Blim
F. G. Thompson, III
C. Read Boles
Raymond J. LaDriere
Juliette M. Eliscu
Harold Adams
Marvin D. Bordy

(Referred to Reference Committee on Miscellaneous Affairs.)

REPORT OF THE COMMITTEE ON MENTAL HEALTH

A joint meeting of the Committees on Alcoholism and Mental Health was held in Jefferson City on April 24, 1969.

At that time, it was discussed that Committee members had appeared before the License Committee of the State House of Representatives to oppose certain features of a bill introduced to license psychologists. The sponsor of the bill and representatives of the Missouri Psychological Association accepted the amendments offered by our Committee. The bill, however, died on the House Calendar.

The Committee approved the institution of liaison between the Association's Committees on Mental Health and Alcoholism and the Missouri Bar Association to explore a possible joint endeavor regarding the legal definition of and the better handling of the alcoholic. Similar liaison also was approved with the Probate Judges' Association and the Highway Patrol to explore joint problems.

James N. Haddock, Chairman
H. V. Guhleman, Jr.
Paul W. Hayes
Robert S. Terrill
Marie Mowrer
D. R. Edwards
Johannes F. Hulstra
Paul L. Barone

Brief Summary of Prescribing Information— 9-9/22/69. For complete information consult Official Package Circular.
Indications: Essential hypertension. Use cautiously in patients with renal insufficiency, particularly if they are digitalized.
Contraindications: Anuria, oliguria, active peptic ulceration, ulcerative colitis, severe depression or hypersensitivity to its components contraindicates the use of Salutensin.
Warnings: Small-bowel lesions (obstruction, hemorrhage, perforation and death) have occurred during therapy with enteric-coated formulations containing potassium, with or without thiazides. Such potassium formulations should be used with Salutensin only when indicated and should be discontinued immediately if abdominal pain, distension, nausea, vomiting or gastrointestinal bleeding occurs. Use cautiously, and only when deemed essential, in fertile, pregnant or lactating patients. *Use in Pregnancy:* Thiazides cross the placenta and can cause fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly electrolyte disturbances. Fatal reactions may occur with reserpine during electroshock therapy; discontinue Salutensin 2 weeks before such therapy. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated mothers.
Precautions: Azotemia, hypochloremia, hyponatremia, hypochloremic alkalosis and hypokaliemia (especially with hepatic cirrhosis and corticosteroid therapy) may occur, particularly with pre-existing vomiting and diarrhea. Potassium loss or protoveratrine A may cause digitalis intoxication. *Potassium loss responds to potassium-rich foods, potassium chloride or, if necessary, discontinuation of therapy. Stop therapy if protoveratrine A induces digitalis intoxication.* Serum ammonia elevation may precipitate coma in precomatose hepatic cirrhotics. Discontinue therapy 2 weeks before surgery or if myocardial irritability, progressive azotemia or severe depression occur. Exercise caution in patients with chronic uremia, angina pectoris, coronary thrombosis or extensive cerebral vascular disease *or bronchial asthma* and in those with a history of peptic ulceration or bronchial asthma; in post-sympathectomy patients; in patients on quinidine; and in patients with gallstones, in whom biliary colic may occur. Patients who have diabetes mellitus or who are suspected of being prediabetic should be kept under close observation if treated with this agent.
Adverse Reactions: Hydroflumethiazide: Skin rashes (including exfoliative dermatitis), skin photosensitivity, urticaria, necrotizing angiitis, xanthopsia, granulocytopenia, aplastic anemia, orthostatic hypotension (potentiated with alcohol, barbiturates or narcotics), allergic glomerulonephritis, acute pancreatitis, liver involvement (intrahepatic cholestatic jaundice), purpura plus or minus thrombocytopenia, hyperuricemia, hyperglycemia, glycosuria, malaise, weakness, dizziness, fatigue, paresthesias, muscle cramps, skin rash, epigastric distress, vomiting, diarrhea and constipation. *Reserpine:* Depression, peptic ulceration, diarrhea, Parkinsonism, nasal stuffiness, dryness of the mouth, weight gain, impotence or decreased libido, conjunctival injection, dull sensorium, deafness, glaucoma, uveitis, optic atrophy, and, with overdosage, agitation, insomnia and nightmares. *Protoveratrine A:* Nausea, vomiting, cardiac arrhythmia, prostration, blurring vision, mental confusion, excessive hypotension and bradycardia. (Treat bradycardia with atropine and hypotension with vasopressors.)
Usual Dose: 1 tablet b.i.d.
Supplied: Bottles of 60, 600, and 1000 scored 50 mg. tablets.

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hydroflumethiazide, 50 mg./reserpine, 0.125 mg. protoveratrine A, 0.2 mg.

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Syracuse, New York 13201

The antihypertensive therapy that is easy to live with.*

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*Salutensin is usually well-tolerated (however, serious side effects can occur; see adjacent column for brief summary of prescribing information).

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Easy-to-live with cost of therapy. The one to two tablets a day maintenance dose makes Salutensin economical to stay with. Important, because long-term control calls for long-term therapy.

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Edward T. Auer
Harold D. Wolff
Robert D. Brookes
Charles B. Wilkinson
Carleton J. Lindgren
Edmund V. Cowdry, Jr.

(Referred to Reference Committee on Medical Education.)

REPORT OF THE COMMITTEE ON CONSTITUTION AND BYLAWS

The Council of MSMA directed this Committee to take the proposal of the Council's special Long-Range Planning Committee, which has been approved in principle by the Interspecialty Committee and the Council, and place this in form to streamline the present Association Committee structure through amendment of Chapter VII of the Constitution and Bylaws.

Your Constitution and Bylaws Committee, following the direction of the Council, submitted such a proposed change in the MSMA bylaws, Chapter VII, to the Council at its meeting on January 30-31, 1970.

This proposed change will be presented to the House of Delegates through the Council Meeting minutes of January 30-31, published in the Delegates Handbook.

Kenneth C. Hollweg, Chairman
Paul R. Whitener
W. A. Bloom
Byron M. Stuart

(Referred to Reference Committee on Constitution and Bylaws.)

REPORT OF COMMITTEE ON CONTROL OF VENEREAL DISEASE

The Committee did not meet officially during 1969. However, the MSMA headquarters staff in Jefferson City was asked to continue working in liaison with the Missouri State Department of Education pursuant to introduction of a full health course in the public school curriculum, including venereal disease control. Related resolution was approved by the MSMA House of Delegates in 1966.

Progress reports, consequently, were issued by Mr. Robert Taylor of the State Department of Education. To date, school superintendents throughout Missouri have been surveyed to learn specific needs in health education and respective existing programs. Completed questionnaires were processed by computer as the next step in the research.

On January 15, 1970, Mr. Robert Taylor reported that sample written tests were being distributed to 5,000 students in 47 different school districts in Missouri at the sixth, ninth and 12th grade levels. The tests were prepared using national health education standards, and the completed tests will be compared also with national standards. The purpose is to determine the type and results of health education courses now being taught and the type of courses to be offered throughout the public school system in Missouri. Final computation of this portion of the study is expected to be available about April 1, 1970.

Edwin M. Powell, Chairman
T. E. McMillan
John C. Murphy
John Martin
Arthur W. Neilson
J. H. Schmidt
George H. Rodgers

(Referred to Reference Committee on Medical Education.)

REPORT OF THE COMMITTEE ON EYE HEALTH

The Committee did not meet during 1969. However, the Chairman prepared a progress report on litigation to date covering the Curteman Case. At the invitation of the Council, the Chairman presented this progress report for the information of the Council in session on December 14, 1969. Council minutes of December 13-14, 1969, page 14, include the Chairman's report in more detail. This progress report, prepared by the Chairman and mailed as revised to the full Committee on Eye Health on December 15, is on file in the MSMA Headquarters Office. (See Council minutes in this booklet for meeting on December 13-14, 1969.)

Flavius G. Pernoud, Chairman
Earl G. Padfield, Jr.
W. H. Lewin
John D. Maddox
Truman B. Schertz
Calvin J. Curts
D. E. Eggleston
Jack Hartstein
George Mandler
H. B. Stauffer
Bill G. Prater
Wilber B. Spalding, Jr.
Paul W. Miles
Paul Beck
Edward Plowman

(Referred to Reference Committee on Medical Education.)

REPORT OF THE COMMITTEE ON DIABETES MELLITUS

The Chairman of the Committee on Diabetes Mellitus reported to the Council of the Missouri State Medical Association at a meeting on June 14 and 15, 1969. Details of that report are included in the Council minutes of the June 14-15 meeting printed elsewhere in this book.

Harold K. Roberts, Chairman
Loren Broaddus
H. E. Oppenheimer
Thomas W. Burns
Donald A. Black
Harold Ridings
William H. Olmsted
C. C. Cohrs
Harvey Walker
Robert Mosser
Mary C. McCaffree

(Referred to Reference Committee on Medical Education.)

REPORT OF COMMITTEE ON ANESTHESIOLOGY

The annual report of the Committee on Anesthesiology is submitted to the House of Delegates for information, and no specific recommendations or requests are included.

There are 116 members of the Missouri State Medical Association who devote their professional activities to the specialty of anesthesiology.

Residency programs are offered in anesthesiology at the University of Missouri Medical Center, Columbia; Barnes Hospital Group, St. Louis; Jewish Hospital, St. Louis; and St. John's Hospital in Springfield.

The American Board of Anesthesiology has, as of January 7, 1970, not agreed to the admission of Doctors of Osteopathy as residents in accredited training programs.

Kenneth K. Keown, Chairman
Harold J. Freiheit
Karl K. Ness
S. Ross Melgaard
James S. Gordon
John P. Eberle
George R. Weeks
Robert B. Dodd
Gordon F. Wise
Timothy T. Dalton
Ira Hubbell

(Referred to Reference Committee on Medical Education.)

REPORT OF COMMITTEE ON DISASTER MEDICAL CARE AND NATIONAL DEFENSE

The Committee did not schedule a meeting during 1969. During the 1969 Missouri General Assembly, the Committee, with Council approval, supported revision of the existing Missouri Driver License Law proposing (a) reduction of the maximum blood alcohol content from .15% to .10% and (b) correction of terminology in existing law regarding the printing of the word "milligrams" which should read "milliliters." Unfortunately, the Missouri General Assembly did not pass these revisions, but, hopefully, will do so during the next General Assembly in 1971. The blood alcohol restriction, when revised, would conform with the Federal Highway Safety Act regulations.

The Committee supported and worked in liaison with the University of Missouri and the Missouri Division of Health in the development of the ambulance program at the Medical Center in Columbia. This program was organized to meet the need for ambulance services in the respective small communities and rural areas across Missouri.

The Committee supported and worked with the news media in the Driver Safety Program.

John T. Crowe, Chairman
Michael J. Clarke
Richard W. Gunn
William F. Bell
Durand Benjamin
Allen P. Klippel
O. P. Hampton, Jr.
Joseph P. Russell
Robert B. Young
Thomas B. Cook
W. Alexander Hoja
John L. Mothershead
Louis P. Hetlage
Marshall B. Conrad
H. M. Hardwicke
Carroll Hungate

(Referred to Reference Committee on Miscellaneous Affairs.)

REPORT OF THE COMMITTEE ON PUBLIC SERVICE

Among its activities during the past year, the Public Service Committee for the third straight year sponsored a meeting for officers of Component County Medical Societies in Missouri as well as for all members of the State Association.

These three physicians are well known to MSMA members for their service to the Association. Treasurer Max Franklin *(left)* provides a good laugh for Council Vice-Chairman Walter T. Gunn and Secretary John I. Matthews during one of the lighter moments of the convention. Drs. Franklin and Matthews were reelected to their offices. Dr. Gunn moved from Vice-Chairman to Chairman of the Council.

Purpose of the conference is to improve the relationships between the State Association and local societies and to alert all members of the Association to the positive programs and policies of professional medicine.

The 1970 meeting was held at the Ramada Inn, Jefferson City on January 31 and February 1 and featured talks by two members of the Missouri General Assembly and a banquet address by a United States Senator.

Also featured on the program was a discussion concerning Comprehensive Health Planning in our state.

The Sunday morning, February 1 section of the program was devoted to organized medicine. There were talks concerning the role of the American Medical Association, the Missouri State Medical Association and the County Medical Society. A special session also was held for Society Presidents as well as a session for Society Secretaries.

A total of one hour and 45 minutes of the Sunday morning session was devoted to group discussions with a long list of interesting topics considered by the physicians in attendance.

During the final half hour of the program, the discussion leaders presented short reports on the topics which had been discussed by their groups.

The Public Service Committee recommends that conferences such as this be continued and that an effort be made to involve even more of the membership of the Association in such meetings.

Walter T. Gunn, Chairman
Doyle C. McCraw
Joseph L. Fisher
Thomas K. Beene
H. Peter Ekern
Grover S. Patterson

(Referred to Reference Committee on Reports of Officers.)

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REPORT OF COMMITTEE ON LEGISLATIVE MATTERS

The 1969 session of the Missouri General Assembly was a busy one for medicine, and the Legislative Matters Committee worked closely with the Council to carry out the policies of the Missouri State Medical Association.

Approximately 60 medically-oriented bills were introduced during the 1969 regular session and all were closely followed by the Committee and members of the MSMA staff.

More than 45 witnesses were provided for 30 hearings during the regular session.

At least two special sessions of the Legislature will be held during the current year. The first special session in January dealt only with emergency appropriations (including funds for Medicaid) and the date for the special election on the Tax Reform (income tax increase measure). The second special session, scheduled for Spring, will deal with the 1971 fiscal budget and other matters which the Governor includes in his message to the General Assembly.

The 1969 regular session saw the passage of the first measure in Missouri under the Association-supported "umbrella" concept for paramedical personnel to be registered under the Board of Registration for the Healing Arts. Professional physical therapists are now being registered.

The session also saw approval of the new University of Missouri Medical School at Kansas City—a project supported by MSMA at the direction of the House of Delegates. A $150,000 appropriation for planning the school was approved by the General Assembly. An additional $25,000 was lost when the omnibus appropriations bill died on the final night of the session.

An attempt to change the statute of limitations in professional liability cases died on House Calendar. The bill as first introduced would have added the provision that action in professional liability cases would have to be brought within two years after discovery in all cases instead of the present two years from the act statute. The bill which died on the House Calendar had been amended to read that the discovery provision would be limited to only those cases involving foreign substances negligently left in the body. And, in no case would the limits run longer than ten years from the act. In all other cases, the statute would have run two years from the act as in present Missouri law.

The above-mentioned are only examples of bills of interest to our profession. The Legislative Matters Committee sought to keep the membership informed of developments during the General Assembly session with articles in Missouri Medicine and a special mailing. At the end of the session, at the direction of the Council, a full report on all medically-oriented legislation was mailed to all members of the Association.

The Committee appreciates the help of many members of the Association during the 1969 session of the Legislature and looks forward to the help of many additional members in the future.

John I. Matthews, Chairman
Doyle C. McCraw
Joseph L. Fisher
Gerald L. Miller
Walter T. Gunn
Stanley S. Peterson
J. Loren Washburn
Arthur W. Neilson
Hector W. Benoit, Jr.
William E. Powers

(Referred to Reference Committee on Miscellaneous Affairs.)

REPORT OF COMMITTEE ON ALCOHOLISM (SPECIAL)

During the year, a meeting of the Alcoholism Committee was held in conjunction with the Mental Health Committee. In attendance, also, was Dr. Walter Wolman, Director, Department Mental Health, AMA, Chicago.

At the meeting, closer liaison between state societies and the AMA was suggested with the AMA offering its help and, also, that liaison be instituted between our committees and such organizations as the Missouri Probate Judges Association, the State Highway Patrol and other statewide law enforcement agencies.

In the spring of 1969, a questionnaire pertaining to treatment of alcoholics was mailed to 110 general hospitals throughout the state. Eighty-one replies were received with the following results:

"Will your hospital accept patients with an admitting diagnosis of alcoholism, acute and chronic?"

Yes	66 (81.5%)
No	15 (18.5%)

At first glance, this percentage looks good, but a number of the yes answers were qualified by statements such as, "if beds are available" or "occasionally if controllable" or "as an emergency only."

The answer from one hospital stated that it did accept alcoholics. Recently, however, a personal letter from this hospital stated that alcoholics could be admitted only for the treatment of the complications of alcoholism.

Considering the qualifying statements, we believe one could generalize that frequently the number of beds available to alcoholics would be somewhat less than shown in the statistics.

Another question requesting information as to why alcoholics were not admitted in the hospitals that did not admit them revealed the following (20 answers):

Not admitted due to*

(a) shortage of beds	5 (25%)
(b) lack of trained personnel	7 (35%)
(c) other reasons	8 (40%)

Among the reasons for not admitting alcoholics for treatment were fear of violence, lack of proper facilities, not being equipped to handle them, being against medical staff rules and regulations and one which stated, "We don't want to treat them—simple as that."

The results of this questionnaire reveal a definite need for more information in the area of alcoholism. For instance, the fear of violence stated would be nonexistent if the treating-personnel were trained in modern therapy of this disease. Also, some of the answers seemed to reflect that the respondent did so on a basis of morals rather than considering that these were sick people who needed treatment.

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* There were some multiple answers.

In addition, your chairman has been in correspondence with some insurance companies regarding policies in payment of claims for treatment of alcoholism. In general, the attitudes of insurance companies are better than formerly, but there is still some education needed here, also. One uninformed company representative stated, "Alcoholism is neither an injury nor a sickness but a self-inflicted condition."

Your committee recommends that:

1. An alcoholism committee be continued in MSMA. If so desired by the Council, it will add to its other responsibilities, drug abuse.
2. More education on alcoholism be made available to both medical and lay groups. This could be done by means of seminars at MSMA annual meetings, at county medical society meetings and staff meetings of various hospitals, by publications in MISSOURI MEDICINE and by speaking engagements before nonmedical groups.
3. Copies of the *AMA Manual on Alcoholism* and *The Drug Dependence Guide for Physicians* (to be furnished by the AMA) be distributed to house officers in hospitals throughout the state.
4. A survey be made of insurance companies operating in Missouri as to their attitude toward payment of claims for alcoholism.

Members of the committee will make themselves available to speak before professional and lay groups desiring information.

JOSEPH B. KENDIS, Chairman
MAX TEARE
EVELYN GRIFFIN
TOM R. BURCHAM
KATHLEEN SMITH
KENNETH GLOVER

(Referred to Reference Committee on Medical Education.)

REPORT OF THE COMMITTEE ON INDUSTRIAL HEALTH (SPECIAL)

The Committee on Industrial Health of the Missouri State Medical Association has been very active by correspondence, the result of which has been that the Committee asked for and was given a part in the MSMA program to be held in Kansas City in April, 1970. Through the cooperation of the state office and various committee members, we were able to formulate a program called "The General Practitioner in Industrial Medicine" for Friday, April 3, from 2 PM to 3:30 PM.

Henry F. Howe, M.D., Director of the Department of Occupational Health of the American Medical Association, will speak on "Part Time Medical Services to Industry," and Mr. James I. Kaut, Referee for the Missouri State Division of Workmen's Compensation in Kansas City, will speak on "Disability Rating in Workmen's Compensation Cases." Following these presentations, Dr. Howe, Mr. Kaut, Dr. William Macon, Jr., Dr. Paul Centner and the Committee Chairman will act as a panel for the entertainment of questions. The Committee expects the last part of this program to be of great educational value. Your Committee feels that industrial medicine is of interest to every general practitioner and to many specialists and that the time allotted will be used constructively. We are hopeful that the House of Delegates will lend its efforts in assuring a good attendance.

The Committee has been active in other ways, namely, the planning of future programs in such a way as to enable it to provide enough material for an entire volume of the *Journal of the Missouri State Medical Association*. This is a formidable undertaking, but we are going ahead with our plans and are hopeful that we might produce enough material to approximate, if not better, the quality of the last complete issue of the *Journal* devoted to industrial medicine in February of 1948.

Dr. Doyle C. McCraw, President of the MSMA, was the official host to the 29th American Medical Association Congress on Occupational Health held at Stouffer's Riverfront Inn in St. Louis on September 15-16. Dr. William Macon, Jr. represented your Committee at the Advisory Conference for State and County Committee Chairmen annually held in connection with this meeting. The Chairman of your Committee, who also is a member of the AMA's Council on Occupational Health, moderated one of the afternoon sessions of the Congress. Physicians interested in industrial medicine throughout the midwest were in attendance.

Various members of the Committee have attended meetings of the Industrial Medical Association (Houston); American Academy of Occupational Medicine (Boston); American Public Health Association; American College of Preventive Medicine; American College of Legal Medicine; etc. Numerous members of the Committee are working on the county level in industrial medicine, and your Committee has provided speakers for numerous organizations, both locally and nationally, in an effort to promote modern industrial (occupational) medicine.

Your Committee has found consensus by correspondence to be an effective method of operation.

RICHARD A. SUTTER, Chairman
JOHN W. BERRY
PAUL J. CENTNER
WILLIAM L. MACON, JR.
VAN W. TAYLOR
HORACE A. LOWE, JR.
C. RUSH MCADAM
GROSVENOR ROBERTS
HOWARD ADAMS
ROBERT LANNING

(Referred to Reference Committee on Medical Education.)

REPORT OF THE MEDICAL-LEGAL COMMITTEE (SPECIAL)

The Medical-Legal Committee met in Jefferson City on August 10, 1969 and in Columbia on December 7, 1969 and again on January 25, 1970 to discuss the malpractice problems in Missouri and various methods of preventing the increase in suits and claims against Missouri physicians.

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A considerable amount of the committee's work has centered on whether or not the establishment of pretrial screening panels for professional liability suits should be recommended to the State Association. We heard testimony in opposition to panels from the leading malpractice defense attorney in Missouri and from the president of the insurance company that insures the majority of our members. It was their conclusion that panels do not benefit the physician. It appears that the plaintiff and his attorney would use such panels as a method of obtaining information.

The Committee does not recommend the adoption of pretrial screening panels at this time.

The Committee has recommended that the Association's sponsorship of group professional liability insurance be further studied.

The possibility of countersuits brought by physicians, if they are successful in their defense of a case, appears to have merit. The Committee recommends that the State Association adopt a policy of encouraging countersuits. The Committee realizes that most physicians would be reluctant to file suit and that damage would be remote and difficult to assess, but, perhaps, countersuits could reduce the number of suits brought against members. Possibly, the Medical Defense Committee could provide funds to defray some of the expense of countersuits.

It is recommended that legislation be drafted and introduced in the Missouri General Assembly, similar to the California Bill 259. This bill authorizes the defendant in malpractice suits to require the plaintiff to post bond as security for the cost of defense. It requires the plaintiff to pay the defendant's court costs upon dismissal of the action or upon award of judgment to the defendant.

Our Committee also recommends that, in cooperation with the Hospital Association, joint workshops be developed on the prevention of medical accidents in hospitals. Now that Missouri hospitals have, through the courts, lost their "charitable immunity," we believe these workshops would be quite worthwhile for both groups. Discussions should be encouraged at all levels of patient care.

Our Committee also recommends that malpractice and professional liability articles be published in Missouri Medicine.

Daniel L. Yancey, Chairman
Lee T. Ford
Frederick J. McCoy
Irving H. Clark
Lysle M. Bach
Jerome I. Simon
Ned D. Rodes
Ned B. Chase, Jr.

(Referred to Reference Committee on Miscellaneous Affairs.)

REPORT OF THE COMMITTEE ON NURSING AND PARAMEDICAL PERSONNEL (SPECIAL)

The Committee is pleased to report continued excellent relationships with the State Board of Nursing, the Missouri Nurses' Association, the Missouri League for Nursing, Inc. and the Missouri Hospital Association, as well as the Missouri Division of Health and the State Board of Health. We are grateful to the MSMA Woman's Auxiliary and, in particular, its Health Careers Committee for its continued interest and cooperation.

While all of these agencies are exerting a maximum effort to provide citizens of Missouri with adequate, well-trained nursing and paramedical personnel, serious financial difficulties caused by inadequate subsidization of the various training programs prevent attainment of this goal. Desirable and, in many cases, necessary expansion of training facilities has been lagging. Sufficient staffing with qualified teaching personnel has not been attained, primarily due to shortage of Masters Degree candidates being trained by the universities in this state.

While the Committee is not entirely satisfied that sufficient efforts are being made in this direction, particularly at the University of Missouri, we do realize the budgetary limitations imposed by present fiscal policies of the state government. The Committee, however, feels that the House of Delegates of the Missouri State Medical Association should strongly recommend to both the legislative and executive branches of the government of Missouri that adequate funds be made available to help provide a high quality education to more students in the health fields. The Governor of the state should be requested to instruct Boards of Trustees of the various state institutions to give sufficient budgetary considerations to these areas in their planning efforts. Federal funds to supplement educational needs usually are contingent on state matching budgets.

The Committee feels that adequate provision for future health care services of the people of Missouri is of major concern at this time. Therefore, health personnel training facilities cannot be relegated to a second class status in budgeting of the various educational institutions.

The Committee also feels that encouragement should be given by the Governor to development of more extensive health profession education programs in the various private sectors of education in Missouri.

The Committee further recommends that the Governor of the state of Missouri be urged to promote more active recruitment into the health professions through school counseling services throughout the state. The development of Schools of Allied Health Sciences at the universities in the state should be encouraged and adequately supported. Special provisions should be made to utilize the skills of returned medical corps personnel of the armed services in civilian health careers by providing adequate educational credits for nonacademic experience. Needed, also, is a salary and classification status to encourage retention of these people in the health fields of civilian life. Encouragement also should be given to the recruitment of mature people for training in suitable health care occupations and return of temporarily retired nursing personnel into active nursing careers, encouraged by establishment of and continuous refresher courses.

The Committee again recommends strong support and encouragement of all recognized modalities of nurses' training and adequate remunerations for all members of the health team.

John H. Walters, Chairman
Edward Beheler
Joseph Cope
James M. Flynn
A. J. Signorelli
R. Stacey Long
John R. Esther
Roy Gillispie

(Referred to Reference Committee on Medical Education.)

REPORT OF THE COMMITTEE ON RURAL MEDICAL SERVICE (SPECIAL)

The Committee on Rural Medical Service at their meeting January 18, 1970 in Columbia considered and discussed the following:

1. It was reported that the Committee's previous recommendations that first aid be taught in schools in connection with Driver's Education Courses was being implemented. The revised teachers' manual from the State Department of Education includes a chapter on first aid and, hopefully, every driver's education course being offered in the state will include five days of first aid instruction.

2. A general discussion of the ambulance service developed at the University of Missouri Medical Center through a grant from the U. S. Bureau of Public Roads was held. A portion of the grant provides for the training of ambulance personnel throughout the state. The Committee was informed that courses could be offered for all interested personnel in their areas.

3. The Committee explored the possibility of resident utilization in the coverage of medical practice during postgraduate training of practicing physicians. A program of this type would assist both the resident and the practicing physicians. It would enable the physician to take advantage of postgraduate training and it offers educational advantages and the exposure to the rural practice of medicine to the resident.

It was suggested that an estimate of the number of residents needed for this program be prepared and, possibly, a grant from RMP could be obtained to establish this.

4. The AMA models for delivery of health services in rural areas were discussed. Of primary interest were the Florida and Oklahoma plans. Possibly a plan similar to Florida's can be developed in Missouri.

5. The Committee endorsed the AMA House of Delegate's action on Report "Q" of the Board of Trustees concerning Highway Directional Signs and the AMA Emergency Medical Symbol and urges the State Association and local societies to promote its adoption through appropriate levels of government.

6. Four resolutions were prepared and adopted by the Committee to be presented to the House of Delegates at the MSMA Annual Session: These are (1) overturn protection for farm tractor operators; (2) Slow-Moving Vehicle (SMV) emblem; (3) programs for Rural Emergency Medical Services; and (4) health manpower in rural areas.

Charles A. Worley, Chairman
B. J. Bass
James H. Sweiger
O. W. Cook
Leopold Lachance
Robert Moellenhoff
Paul Hilton
T. M. Macdonnell
James Hasek
Edward Jackson

(Referred to Reference Committee on Miscellaneous Affairs.)

REPORT OF COMMITTEE ON STUDY OF CARDIAC DISEASE (SPECIAL)

The Committee did not schedule a meeting during 1969. However, the Committee studied a resolution referred by the Missouri State Board of Nursing to revise existing policy on the Registered Nurse and Cardiac Resuscitation. After study of this resolution by the Committee, decision was reached to reaffirm the present policy which approves service rendered by Registered Nurses, Licensed Practical Nurses and any person qualified to perform. The new resolution referred to above excluded all but the Registered Nurse and stated that the LPN would introduce their own separate resolution for respective coverage.

Jack S. Sanders, Chairman
James G. Janney, Jr.
R. E. Stufflebaum
William J. Shaw, Sr.
Keith H. Averill
Don J. Stallard
David V. Miller
Joseph C. Edwards
J. Tenbrook King
Morris Alex
Jack M. Martt
V. L. Willman
James Myers

(Referred to Reference Committee on Medical Education.)

REPORT OF THE COMMITTEE ON TUBERCULOSIS (SPECIAL)

A joint meeting of the MSMA Committee on Tuberculosis, the Missouri Thoracic Society Executive Committee and the Missouri Tuberculosis and Respiratory Disease Association Medical Education Committee was held on November 16, 1969.

Mr. Gail Bank, representing the Continuing Medical Education Program of Missouri University, explained the telelecture program now in operation at 52 hospitals in Missouri. Each program is basically a two-way telephone system using four wires instead of the normal two wire equipment. Future plans include signing up 45 additional hospitals. Existing communication equipment at Missouri University is utilized and classified as the base headquarters of the system. The official administrator is the Missouri University Continuing Medical Education Program. Funds are provided by the Missouri Regional Medical Program—Heart, Cancer and Stroke. Programs to date are planned for education of physicians, nurses, physical medicine and rehabilitation, technologists and other allied services. Present funds are considered sufficient to cover the next 12 months of operation. At the end of this time, based on success and need, private sources would be asked to finance future operation.

It was suggested that publicity for the program could be offered for publication in Missouri Medicine and *The Missouri Family Doctor*, along with news publications of the Missouri Tuberculosis and Respiratory Disease Association.

After thorough discussion, it was moved and duly seconded to endorse and recommend participation in the telelecture program as described by Mr. Gail Bank. The MSMA Council, meeting on December 13-14, 1969, gave official approval of this motion.

This meeting also concerned itself with discussion on the "Chemotherapy" of Tuberculosis. Dr. Brasher, Medical Director of Mount Vernon, reported that an article

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Councilors John N. Martin of St. Joseph and Robert A. Mayer of St. Louis County greet Councilor James C. Cope of Columbia as he arrives for the Council meeting preceding the Annual Session.

on Drug Therapy is being prepared in his Department of Medicine which will be offered to Missouri Medicine for publication. Dr. Meinershagen, Director, Section of Personal Health Services, Missouri Division of Health, reported on problems in financing the Missouri Division of Health Tuberculosis Program. Dr. Belden, Director, Bureau of Communicable Diseases, Missouri Division of Health, distributed copies to those present of the current *Prevention of Tuberculosis—A Guide for Physicians.* Additional copies may be obtained by addressing the Missouri Division of Health, Bureau of Communicable Diseases, Jefferson City, Missouri 65101. Mr. Pratt, of the Missouri Tuberculosis Association, called attention to a publication released recently by the Missouri Health Council entitled *Manual of Medical and Health Services in Missouri.* Copies may be obtained by addressing the Missouri Regional Medical Program, Lewis Hall, Columbia, Missouri 65201. Dr. Brasher distributed copies of a map indicating patient admissions to Mount Vernon Sanatorium, by district, throughout Missouri. Mention was made of another symposium to be conducted at Mount Vernon for general practitioners.

Dr. John Devine, president of the Missouri Thoracic Society, invited physicians present to attend the "Tri-State Clinical Meeting" on March 6-8, 1970 at the Marriott Motel, Chicago, Illinois. This organization was originally started to bring about uniformity in tuberculosis treatment in the states of Missouri, Indiana and Illinois. The annual program sponsored by this organization on Tuberculosis and other Respiratory Diseases has proved to be interesting and worthwhile. Attendance is limited to 75 physicians.

Florence E. MacInnis, Chairman
Paul Murphy
William J. Gillespie
Robert G. Muth
William A. Werner
Alan H. Bailey
Sheldon B. Beecher
Judson I. Chalkley
C. A. Brasher
L. P. McCann
Robert Dunshee

(Referred to Reference Committee on Medical Education.)

REPORT OF THE COMMITTEE ON ENVIRONMENTAL HEALTH (SPECIAL)

Informed sources at the national and state levels have reported an urgent need for action to improve environmental health. The MSMA Committee on Environmental Health has, accordingly, functioned during the past year to the limit of its ability.

The Chairman, after meeting with the St. Louis Medical Society Environmental Health Committee and polling the Missouri State Environmental Health Committee, forwarded to Governor Hearnes a "Statement of Need and Purpose" and the framework of a plan to set up an "Action Committee" to deal with the problems of our changing environment. The Governor responded by holding a hearing in his St. Louis office with representatives from the Air Conservation Commission; the Water Control Board; Mr. E. Fusz Hatcher, a consulting engineer; a representative from the Southern Governors Conference meeting; the Farm Bureau; and others, including staff. The hearing brought to a sharp focus the need for a conference at a high level. Early in November, your Chairman was contacted by Mr. Floyd C. Warmann, Governor Hearnes' assistant, and was advised that a financial grant had been secured and that an Urban Conference is under consideration. Your Chairman was asked to take part in the planning for this meeting on the Environment. Environmental Study is to be an integral part of this meeting. The Governor was impressed by the activity of Missouri physicians and readily accepted the offer of the Chairman for the strong backing and cooperation of all the physicians of the Missouri State Medical Association. The Chairman reported that he has been appointed to the Governor's Environmental Quality and Health Task Force which works as a part of the Governor's Advisory Council for Comprehensive Health Planning. Your Chairman has been in touch with Mr. Frank W. Barton, Director of the Department of Environmental Health of the AMA, and has conferred with Dr. John S. Chapman, Chairman of the AMA Council on Environmental and Public Health, while at the Denver meeting.

The Association has been approached by Mr. Frank Barton concerning a tentative meeting to be held next fall with representatives from 50 state medical associations—we have discussed this with Mr. Barton and have agreed to send representatives.

The Chairman would also like to report his appointment to membership on the AMA Council on Environmental and Public Health, through action of the Board of Trustees pursuant to recommendation from the Missouri State Medical Association, its Council and Officers.

The Chairman attended a five-state Southwestern program in Scottsdale, Arizona on January 9-10, 1970, which was sponsored by the AMA Council on Environmental and Public Health.

Your Chairman attended a "Governor's Conference on Environment Planning" meeting on January 15 in Kansas City, Missouri.

As directed by the MSMA Council, the Committee with legal advice of Mr. John Noble, has studied and submitted a Missouri Driver's License form in an attempt to reduce the form to one page and to eliminate, or at best reduce, physician liability as a result of signing a driver's physical examination. Subsequent to Council approval, the form was referred to the Missouri Department of Revenue Driver's License Section.

The Chairman reported further that the MSMA Committee on Environmental Health held a luncheon meeting with the St. Louis Medical Society Environmental Health Committee on November 24 at the request of the Air Conservation Commission of the State of Missouri. Two following basic problems were discussed: the correlation of health effects and air pollution on human beings with air quality control data and the public health and air or water pollution resultants of improper disposal of waste material from hospitals.

The Council accepted the Chairman's progress report as presented at a Council meeting on December 13-14, 1969.

Arthur W. Neilson, Chairman
E. A. Stricker
Thomas L. Dwyer
Peter H'Doubler
Lloyd A. Hollinger
Carl J. Marienfeld
Thomas J. Fischer

(Referred to Reference Committee on Medical Education.)

THE FOLLOWING COMMITTEES . . .

. . . had no meetings during the past year and have no formal reports to make to the House of Delegates. Many members of these committees were busy, however, keeping informed in their area of interest, representing the Association at meetings and conferences and assisting in arranging programs for both medical and lay groups. The Committee on Medical-Legal Affairs, Disaster Medical Care and National Defense, Maternal Welfare, Industrial Health, Medical Education and Hospitals and Medicine and Religion are sponsoring parts of the program for this Annual Session of the MSMA.

AGING
CANCER
LABORATORY MEDICINE
MEDICAL DEFENSE
MEDICAL EDUCATION AND HOSPITALS
PHYSICAL MEDICINE AND REHABILITATION
RADIOLOGY AND IONIZING RADIATION
TRAUMA

THE COUNCIL

The Speaker stated that the reports of Council Meetings are referred to the Reference Committee on Reports of Officers except those specific portions which are referred to other Reference Committees. These portions are preceded by a black square (■) and are concluded with the committee assignment, which is in bold face type.

Meeting of March 23, 1969

Doyle C. McCraw, M.D., Bolivar, President, called the meeting to order. Those attending the meeting were Drs. McCraw; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; Joseph L. Fisher, St. Joseph; Lysle M. Bach, Hannibal; Walter T. Gunn, St. Louis; Robert A. Mayer, Clayton; Rolla B. Wray, Nevada; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; William Mayer, Columbia; David N. Kerr, St. Louis; W. D. English, Cardwell; Eugene T. Hansbrough, Poplar Bluff; William D. Bradshaw, Clinton, John N. Martin, St. Joseph; Gerald L. Miller, Kansas City; Messrs. Hollister Smith, St. Louis; Allen D. Smith, Kansas City; Ray McIntyre, Bob Carroll and Royal Cooper, Jefferson City.

Dr. English introduced Dr. Eugene T. Hansbrough, Poplar Bluff, the new Councilor from the Tenth District, and stated that he had enjoyed his association as Councilor. Dr. McCraw thanked Dr. English for his wonderful work and his faithful attendance at Council meetings.

Dr. Wray stated that he had enjoyed being on the Council and, also, his years as Alternate Delegate to the AMA. He said he would like to introduce a young man who was active in civic and medical affairs, Dr. William D. Bradshaw of Clinton, who was elected as the new Councilor from the Sixth District.

Dr. Fisher, former chairman of the Council, and President-Elect of MSMA, thanked the Council members for their support during his year as Chairman. He then nominated Dr. John N. Martin of St. Joseph to fill his unexpired term of one year as Councilor for the First District. On motion, Dr. Martin was unanimously elected.

Dr. Gerald L. Miller was nominated and elected Chairman of the Council by unanimous vote and, thereby, became the presiding officer.

Dr. Matthews was nominated and unanimously elected Secretary, and Dr. Max S. Franklin was nominated and elected Treasurer by acclamation. Dr. Walter T. Gunn was nominated and unanimously elected Vice-Chairman of the Council.

Congratulations were extended to Drs. Bach, Robert Mayer and McAlhany, the Councilors from the Second, Fourth and Eighth Districts who were reelected.

KANSAS CITY MEDICAL SCHOOL

Dr. Miller requested Council opinion regarding alerting the Senate Appropriations Committee relative to reaffirmation of our stand for establishing a new medical school in Kansas City. After discussion, on motion of Dr. Mayer, duly seconded, it was agreed that a copy of the resolution regarding the establishment of a new medical school in Kansas City, Mo., which was adopted by the House of Delegates in 1968, be sent to each member of the Senate Appropriations Committee with a covering letter signed by the President indicating that this resolution, as of March 23, 1969, has been reaffirmed by the Council at its official meeting on March 23, 1969.

On motion of Dr. Kerr, seconded by Dr. Gunn, it was agreed that the Council give permission to the staff and the chairman of the Legislative Committee, as they see fit, to use the second resolution regarding increasing the medical manpower in Missouri, which was adopted by the House of Delegates in 1968, in their dealings with the legislature provided that it can be used without compromising the first resolution.

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Dr. Robert Mayer introduced the subject of the Student Health Organization (SHO) which is contacting local medical societies for support and suggested that something be done to alert the doctors regarding this organization.

Dean Mayer of the University of Missouri stated that the SHO Chapter at the University of Missouri is newly-established and is involved in certain activities for two areas: (1) student impact on improving health care in this country, particularly the indigent, and (2) their desire for educational relevancy.

It also was reported that SHO was setting up a clinic for the indigent in Columbia and that they had contacted the Boone County Medical Society for support. This was referred to a Committee of the Boone County Medical Society for consideration.

Attention was called to an article which was published in *Missouri Family Doctor*. It was suggested that a copy of this article be furnished to each Councilor.

Dr. Matthews suggested that the Field Secretary of MSMA watch this situation closely so that the Council can be kept advised of what the situation is and how it develops.

1971 ANNUAL SESSION

Mr. McIntyre reported that a number of the members who attend the annual meeting each year were requesting that consideration be given to holding the St. Louis meeting at another location. After discussion, on motion of Dr. Matthews, it was agreed that the executive staff be empowered to investigate the possibility of relocating the 1971 annual meeting in St. Louis.

NEXT COUNCIL MEETING

The next meeting of the Council will be held June 7-8, 1969, or on alternate dates of June 14-15, depending on where accommodations can be obtained.

(Since that time, because of several conflicts, it was determined that the next Council Meeting will be held in St. Louis at the Chase Hotel on Saturday and Sunday, June 14-15, 1969.)

Meeting of June 14-15, 1969

Gerald L. Miller, M.D., Kansas City, Chairman, called the meeting to order. Those present were Drs. Miller; Doyle C. McCraw, Bolivar; Joseph L. Fisher, St. Joseph; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; David N. Kerr, St. Louis; John N. Martin, St. Joseph; Lysle M. Bach, Hannibal; Walter T. Gunn, St. Louis; Robert A. Mayer, Clayton; William D. Bradshaw, Clinton; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; Eugene T. Hansbrough, Poplar Bluff; Stanley S. Peterson, Springfield; J. Loren Washburn, Versailles; Hector W. Benoit, Jr., Kansas City; Arthur W. Neilson, St. Louis; Robert W. Kelley, St. Louis; William D. Mayer, Columbia; Richard Yore, St. Louis; Herbert Wiegand, St. Louis; Harold Roberts, Clayton; William See, Columbia; Guy N. Magness, University City; Joseph Edwards, St. Louis; Max Teare, Kansas City; Flavius Pernoud, St. Louis; Mr. John Noble, Kennett; Mr. T. R. O'Brien, St. Louis; Messrs. Ed Mothershead, Clayton; Gary Schnedler, Springfield; Allen D. Smith, Kansas City; Hollister Smith, St. Louis; Ray McIntyre, Bob Carroll and Royal Cooper, Staff, Jefferson City.

The Chairman opened the meeting by welcoming the new Council members: Dr. Martin, First District; Dr. Bradshaw, Sixth District; and Dr. Hansbrough, 10th District.

Dr. Miller reported that Dr. William Shaw of Fayette was recuperating at Boone County Hospital and making good progress. He stated that Dr. Shaw has been Chairman of the Medical Advisory Committee to Selective Service in Missouri for a number of years and has done an outstanding job. He suggested that the Council might wish to send a get well greeting to Dr. Shaw. On motion of Dr. Gunn, duly seconded, it was agreed that this be done.

The Chairman requested approval of the March 23 Council minutes. On motion, duly seconded, the minutes were approved.

REPORT OF THE EXECUTIVE SECRETARY

Mr. McIntyre read a letter from IRS, which was received at the Association office, indicating that the tax return form of the Missouri State Medical Foundation has been selected for examination for the year 1967 on July 14. Legal counsel and the auditor indicated this should present no problems. Mr. Fox of the MSMA staff was informed by telephone that IRS also would like to see parallel information for the MSMA as requested in the letter for the Foundation.

Mr. McIntyre stated that we had received a request from SAMA requesting our continuing support with a sustaining membership contribution for the year 1969 in the amount of $100. On motion of Dr. Gunn, duly seconded, this was approved.

He reported that the State Medical Association for several years has given a $100 Savings Bond, plus a certificate of award, to the top ranking senior at each of the three medical schools. This year the recipients were David R. Krauss, Washington University; Wolfgang W. Strobl, St. Louis University; and Steven Achuff, Missouri University.

REPORT OF THE FINANCE COMMITTEE

Dr. Miller stated we would forego the usual Treasurer's Report and asked Dr. Franklin to give a report of the meeting of the Finance Committee held the previous evening.

Dr. Franklin stated that the Committee met on Friday evening, June 13, with the investment officer of the Mercantile Trust Company, Mr. Oliver J. Wilkins. Our investment portfolio has been handled by the bank since 1957. At that time, the holding amounted to $45,000. It is now $116,936. This consists of $72,000 in bonds and $45,000 in stocks. The income from this is estimated to be about $4,400 this year. Mr. Wilkins made several recommendations. He suggested putting the income from these holdings back into the reserve funds rather than into the general funds each year. He also suggested considering increasing this investment fund by adding to it from time to time from general funds. He noted that the dollar has declined in value in 29 of the last 32 years. Therefore, to protect from inflation, he suggested putting more funds into short-term paper and later into stocks when the market improves. An example of short-term paper is C.I.T. (Continental

Investment Trust). To keep the investment fund transactions more flexible, he recommended registering the investment fund holdings in the name of the nominee of the Mercantile Trust Company—Lucas & Company.

Dr. Franklin moved that the Council authorize its officers and the Finance Committee to register the MSMA investment holdings in the name of the bank's nominee and further authorize the Finance Committee to make transactions recommended by the bank. The motion was seconded and after discussion, the motion carried. A motion was made and seconded that the Treasurer's Report be accepted. The motion carried.

REPORT OF THE LEGISLATIVE COMMITTEE

■ The Legislative Report presented by Dr. Matthews, Messrs. Carroll and Cooper is as follows:

House Committee Substitute for *House Bill No. 7*, which includes $460,000 in additional funds for the planning of a Medical School at the University of Missouri-Kansas City is now in conference committee between the House and the Senate. The House has approved the money; the Senate has rejected it. (MSMA supports the medical school funds.) A letter to the conference committee reiterating our support was drafted for delivery to the committee members.

House Bill 85, which makes changes in the chiropractic practice act is on the Senate calendar for third reading of house bills. The bill was amended by the House Public Health Committee to meet objections raised by MSMA and is no longer being opposed.

Senate Bill 43, the Anatomical Gift Act, has been passed by both Houses of the Legislature and signed into law. It will become law the first of July. (MSMA supported bill actively.)

House Bill 239, which sought changes in the present driver blood test law, failed to come out of committee. *Senate Bill 181*, which changed only the weight definition, also died in committee. (MSMA supported both bills.)

House Bill 381, a good Samaritan Bill, covered only physicians and nurses. It died in committee. *House Bill 740*, a broader Samaritan bill, which covered all who render emergency care in good faith, died when the House Perfection Calendar was stricken. (MSMA supported both bills.)

House Bill 341, which provided for a system of medicolegal examiners was perfected by the House and then sent to the House Economics Committee where it is at present. *Senate Bill 146* on the same subject was late receiving a hearing in the Senate and never came out of committee. (MSMA witnesses appeared for both bills and both received strong support from the Association.)

Senate Bill 206, which provided for therapeutic abortions under certain circumstances, was killed on the floor of the Senate. (No MSMA position.)

House Bill 475, which provides that the procurement, processing, distribution or use of whole blood, plasma, blood products and derivatives for purpose of injection or transfusion is a service and not a sale, has been passed by House and heard by Senate Public Health Committee. The Committee has not reported the bill out. (MSMA supported measure actively.)

House Bill 581, which authorizes grants to private medical and osteopathic schools to train more physicians, has been passed by the House and approved by the Senate Education Committee. It is now in the Senate Budget Control Committee because it calls for the spending of state funds. (No MSMA position.)

House Bill 620 and *Senate Bill 270*, which provide for a change in the statute of limitations in malpractice cases, have both been approved by their respective houses in the form of substitute bills. The Senate substitute version more nearly follows MSMA suggestions and appears to have the best chance of passage. It has been assigned to the House Civil and Criminal Procedure Committee. (MSMA has been quite active regarding these bills.)

Senate Bills 204 and *275* would bring nonprofit health service corporations, such as Blue Cross and Blue Shield, under the Division of Insurance. Both died in committee as did *House Bill 557*, similar to *204*. (At directive of House of Delegates MSMA opposed bills.)

Senate Bill 389 would require medical laboratories except those exempted to secure a license to operate from the Board of Health. Bill has not come out of committee.

House Bill 515, which sought the licensing of opticians under own board, died in committee. (MSMA opposed unless under umbrella concept.)

House Bill 142, which called for the registration of psychologists, died when the House Perfection Calendar was stricken. House Committee Substitute bill called for registration under Board of Registration for the Healing Arts and included MSMA proposed definition of psychotherapy.

House Bill 40, which provides for the mandatory reporting by physicians and others of suspected child abuse, has been passed by both the House and Senate. The Senate adopted two amendments which must be approved by the House but the bill is likely to become law. (MSMA supported bill.)

House Bill 39, which provides for registration of physical therapists under the Board of Registration for the Healing Arts, has been passed in different forms by the House and Senate and appears likely to wind up in conference committee of the two houses. (MSMA supports bill as first measure which has gone this far under the umbrella concept.)

Senate Bill 284 in its original form provides that physicians could not give information about their patients in court cases until the case has actually reached court. It could have meant many court appearances under subpoena by physicians. An amendment adopted in the Senate allows the taking of depositions before the case actually reaches the courtroom. The amendment had support of MSMA and the bill in its amended form has now gone to the House Civil and Criminal Procedure Committee.

Senate Bill 172 would put optometrists in the Medicaid program in Missouri. Despite a fiscal note of about $250,000, the bill has been approved by Senate and sent to House Social Security Committee where a hearing has been held. If the bill comes out of Social Security Committee, it will then go to House Economics Committee. (No MSMA position.)

Senate Bill 69 allows podiatrists to prescribe narcotic drugs. It has been passed by both houses and signed into law by Governor. (No MSMA position.)

House Bill 804 relates to a number of activities of the Welfare Department including the payment of emergency ambulance service as part of Title XIX (Med-

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paid). Bill has passed the House and been approved by Senate Public Health Committee and is now in the Senate Budget Control Committee. (Section on ambulances meets ambulance service for indigent resolution adopted by the House of Delegates in March.)

Dr. Matthews also mentioned the possibility of making some changes in the Missouri Medical Practice Law and stated that the Osteopathic Association has expressed interest in this idea. He indicated that a study of this matter should be started this summer or fall in preparation for the next regular legislative session. On motion of Dr. Matthews, duly seconded, it was decided that the Legislative Committee have the opportunity to begin discussions along this line with the Osteopathic Association and that further consideration by the Council be given this matter. On motion, duly seconded, the Legislative Report was approved. The Council commended Dr. Matthews for his usual, excellent work on legislative matters.—**Referred to Miscellaneous Affairs Committee.]**

Dr. Miller commended Dr. Kerr and his long-range planning committee on suggested functions of the Interspecialty Committee. He indicated that there may be some overlap and conflict on occasions on issues which appropriately should go to the Interspecialty Committee, but will be done by standing committees. Thus, he recommended referring various issues brought before the Council to the Interspecialty Committee when it seems appropriate.

JOINT MEETING OF THE COMMITTEES ON ALCOHOLISM AND MENTAL HEALTH

■ The Chairman called on Dr. Teare for the report of the Joint Meeting of the Committees on Alcoholism and Mental Health. Dr. Teare stated that Dr. Kendis and Dr. Haddock could not be present for this Council meeting and asked that he substitute for them in presenting the following report:

The Committees met on April 24, 1969 in Jefferson City. The meeting opened with a discussion of the present status of H.B. 142 which provides for licensure of psychologists. At the time of the hearings, before the House Committee on Licensure were held, members of the MSMA Mental Health Committee made statements and offered several amendments to the bill. As a result, the House Committee on Licensure had the bill rewritten to include the proposed amendments.

Dr. Kendis reported approval by the MSMA House of Delegates in March, 1969 of the recommendation submitted by the Committee on Alcoholism for (1) survey of general hospitals regarding admission of alcoholics, (2) urging local county medical societies to form Committees on Alcoholism, (3) public education programs and (4) speakers on alcoholism. He further reported that the Executive Office was preparing forms in accordance with the above, which will be addressed to Presidents of Hospital Staffs.

Dr. Walter Wolman from the AMA described the history and present function of the new AMA Committee on Alcoholism and Drug Dependence. He urged closer liaison between AMA and the state and local medical societies. The AMA is eager to assist in developing state programs. He also mentioned the new AMA Mental Health Newsletter. State Mental Health Committees are encouraged to submit reports of activities for information and exchange with other states. Special attention was called to the AMA Manual on Alcoholism, which was published for physicians. This publication is offered to the deans of the medical schools for distribution to medical students. It was agreed that efforts be made to distribute these manuals through the respective local county medical societies. It was further suggested that hospitals having intern and residency programs be provided with these manuals for distribution.

In addition, Dr. Wolman indicated that the AMA also offers an exhibit, printed material for use at local society meetings. The AMA has adopted a joint statement offered to the American Bar Association regarding classification of alcoholism as an illness. Approximately 70 state and local medical societies have responded in support of the joint statement.

It was announced that Ray Knowles, M.D. will succeed Ronald Catanzaro, M.D. who is resigning as of June 30, 1969 as director of the Alcoholism Program, Missouri Division of Mental Diseases.

It was agreed by those present that the medical profession should have first priority in programs to gain acceptance of alcoholism as a disease before an attempt is made to educate the general public. It was suggested that when hospitals, insurance companies, etc. accept alcoholics as inpatients, perhaps attention should be given to the development of outpatient services. It was suggested that alcoholics should be treated as any other toxic patient. Due to the crowded situation in most private hospitals, additional beds probably would have to be provided before alcoholic treatment programs could be organized.

A motion was made, seconded and approved by the two Committees to initiate liaison between the MSMA Mental Health and Alcoholism Committees and the Missouri Probate Judge Association, the State Highway Patrol and other statewide law enforcement organizations to explore joint problems in regard to alcoholism. At this point, Dr. Teare asked for approval of the Council to carry out the liaison as proposed in the above motion. On motion of Dr. Gunn, duly seconded, approval of the Council was given to initiate this liaison. Motion carried.

Dr. Teare continued with his report as follows: Dr. Kendis will supply a bibliography of materials on alcoholism from the Kemper Insurance Company to be distributed to the two Committees.

Dr. Wolman described AMA's program and related materials on drug abuse which includes films and various printed publications. The AMA has a Drug Dependency Guide for Physicians which is available for distribution to physicians. This publication is sent to medical school deans for distribution to medical students at selected points in the curriculum. Interns and residents are provided with the publication free of charge. In an effort to reach the educational system at the elementary and secondary level, it was agreed that effort should be made to supply the necessary materials to the State Department of Education. A Full Health Course is being developed at this time as approved by the MSMA House of Delegates. Material on drug abuse and alcoholism was sent to the State Department of Education.

It was agreed that the two Committees would function according to the present MSMA bylaws pending long range planning and possible revision of the Committee structure. Committees will meet jointly as the need indicates. It also was moved, seconded and approved to add drug abuse control to other responsibilities of the Committees on Alcoholism and Mental Health. On motion, duly seconded, Dr. Teare's report was approved. Motion carried.

Dr. Miller requested that the MSMA staff notify all county medical societies of the availability of the AMA Manual on Alcoholism and Drug Dependency Guide for Physicians. He also directed that this report be forwarded to the Interspecialty Committee for information.—**Referred to Medical Education Committee.]**

REPORT OF THE COMMITTEE ON MATERNAL WELFARE

■ The Chairman then called on Dr. See for his report of the Committee on Maternal Welfare. Dr. See reported that the Committee meet in St. Louis on March 21, 1969 to discuss the use of hospital delivery room suites for "clean" gynecologic operative procedures. Dr. Russell of the Missouri Division of Health previously had reported that this procedure was not approved in the Hospital Standards Manual and that permission for St. Mary's Hospital in Kansas City to do a "pilot study" on this issue had been granted earlier. Dr. Russell manifested concern about this project and requested an opinion of the MSMA. The decision was made to canvass the members of the Maternal Welfare Committee by mail for a vote on this matter, since a quorum was not present at the meeting. The majority vote was in favor of the practice of allowing this procedure to take place. Dr. See indicated that the proposal is in the interest of health economics and efficient use of hospital space. He stated that his own personal feeling is that it is expedient, but there could be significant risk and pitfalls. On motion, duly seconded, the report of the Maternal Welfare Committee was accepted. Dr. Matthews indicated that the original action for this matter came from the Division of Health asking for an opinion and he felt it an obligation to respond to the Division. Dr. Miller stated that the Council will request a final report on this pilot study for its perusal and a copy when such is available.

The Chairman then indicated that the action of the Council on the Maternal Welfare Committee Report be directed to the Interspecialty Committee for their information.—**Referred to Miscellaneous Affairs Committee.]**

REPORT OF THE JOINT MEETING OF COMMITTEES ON MATERNAL WELFARE AND INFANT AND CHILD CARE

■ The Chairman requested Dr. Magness to report on the Joint Meeting of the Committee on Maternal Welfare and Committee on Infant and Child Care. Dr. Magness reported that the Committees met on May 18 in Jefferson City. At that time, Dr. Belden of the Missouri Division of Health discussed the Division of Health's role concerning the new Rubella vaccine. He said that most of the vaccine available would be used in Head Start and Well Baby Clinics. Dr. Cherry from Cardinal Glennon Hospital discussed a research project which the hospital has been conducting in the immunization of children against Rubella. He said that the vaccine lends itself to a mass program. It was pointed out that working mothers and mass baby sitting has changed the age of maximum exposure and that a mass program should include children down to the age of one year. Dr. Cherry was concerned about the vaccination of women who might become pregnant. He indicated that he could foresee a $2.25 per dose cost to physicians in the early portion of the program.

The following statement was approved for presentation to the MSMA Council on June 14 and 15: "Dr. Belden has made the joint committees aware of the program. There are not enough specifics available now to make the decision concerning future actions. The Council is asked to circulate information to the general membership of MSMA so that members of the Association will be aware of the Rubella program and able to furnish information. The Association also must be in a position to act if lay groups decide to push such a program. Dr. Belden was asked to keep this group aware of any new actions." Dr. Magness indicated that since the meeting, the vaccine has been licensed and now there is, no doubt, a push to sell it. Although the vaccine does lend itself to mass immunization, it will be much more expensive than the polio programs. It was felt that many lay organizations would promote mass immunization clinics and that physicians should be aware of the Rubella program and its progress.

Motion was made to approve the Rubella program sponsored by the Division of Health as proposed and to put an article in the yellow sheet of the Journal informing our membership of the program. Motion seconded and carried.

Dr. Love of the Division of Health reported to the Joint Committees as to PKU costs. He indicated that the cost of the program is 38½¢ per test. Total cost last year was $31,766; 43,514 were tested and one in 14,700 was positive. Cost of the program also includes the supplying of drugs to 40 patients in the state.

Discussion then followed concerning the restoration in the death certificate the question which asks "whether the deceased was pregnant during six months prior to death." The Committee voted unanimously that the question be restored and Dr. Love indicated it would

Councilors of MSMA's most southern districts visit before the Council meeting in Kansas City on April 1. ***(Left to right)*** **Dr. William D. Bradshaw of Clinton, Sixth District; Dr. Howard J. McAlhany of Springfield, Eighth District; and Dr. Eugene T. Hansbrough of Poplar Bluff, Tenth District.**

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be, but it would take time. He hoped to have it back on the form by January 1, 1970.

Dr. Magness said that both committees had previously recommended to the Council that a new committee be formed to study a program of perinatal care. The suggested appointees to this Committee include Drs. Francis X. Lieb, St. Louis, Chairman; William C. Mixson, Kansas City; Thomas L. Tombridge, Springfield; Webb S. Alsop, Jr., Shawnee Mission, Kan.; and Thomas Morgan, West Plains. Dr. Miller said that these names would be put in the hands of President McCraw for final approval and notification of appointment.

A short discussion followed regarding the Rubella Program and it was pointed out that the program definitely needs to be under the guidance of the medical profession. It is desirable for the local medical society to become involved at the outset of a program and offer assistance and guidance. On motion, duly seconded, the report of the Joint meeting of the Committee on Maternal Welfare and the Committee on Infant and Child Care was approved.—**Referred to Miscellaneous Affairs Committee.]**

REPORT OF THE MEDICAL ECONOMICS CONTRACT COMMITTEE

■ Dr. Wiegand then gave the report of the Medical Economics Contract Committee. He reported that Proctor Carter was in attendance and pointed out the fine physician cooperation with the Medicaid Program in Missouri. Mr. Carter indicated that enough money is available to complete the current fiscal year, but stated that problems are ahead for next year if cuts in the Medicaid budget, as voted by the Missouri Senate, stand.

Mr. Carter stated that he had received nothing official about any new Federal Medicaid regulations. He had received no official information on fee schedules or other plans from HEW. Some of the physicians were concerned about a lack of communications with the Division of Welfare in the Medicaid Program. Others expressed concern about possible lowering of cut-off fee schedules without notice and explanation.

Dr. Wiegand said that he did feel that many of the physicians are not informed about meetings between the Division of Welfare and the MSMA Committees, Council, etc. Mr. Carter stated that he felt it is a good time for a complete restudy of fees paid for physician services. A study is necessary under Federal regulations.

The matter of the Division of Welfare asking for hospital records on patients was then discussed. Mr. Carter feels that laws and regulations give his agency the right to secure Medicaid patient's records. Medicare patients sign a release on records.

The problem concerning payment of supervisory physicians in teaching hospitals was brought up. Apparently, the problem is particularly with the Division of Welfare and Missouri University at Columbia. Mr. Carter said the Division of Welfare wants to pay the doctor who performs the service as required under federal regulations. MU wants one doctor to sign all records for the department and the Division of Welfare wants individual doctors to sign records. The Division of Welfare would be willing to accept a list of services rendered signed by the Chief of Service, if individual doctors are listed and have signed agreements.

Dr. Keown indicated at the Committee meeting that there is need for clarification of Medicaid payments by the Division of Welfare. He wondered if they might be paying a "reasonable" amount arbitrarily in some instances.

After further discussion, the following motion by Dr. Matthews was approved: That a small subcommittee be named to discuss Medicaid payment procedures with Mr. Carter and review these procedures in light of the agreements when the program went into effect. The subcommittee will report back to the full group. It was pointed out that members of the full Committee should bring complaints of individual physicians to the subcommittee, including names of the doctor, date, fee involved and other pertinent information. Chairman Wiegand will notify by mail those who have been named to the special subcommittee. On motion, duly seconded, the report of the Medical Economics Contract Committee was accepted.

The Chairman indicated that before any further action is taken on various items in the Committee's report, the Council await a report from the subcommittee which will discuss Medicaid payment procedures with Mr. Carter.

Dr. William Mayer reported that he had received an intermediary letter from the Social Security Administration last month. The letter attempts to define for teaching hospitals the relationship of the teaching physicians to the individual intern, residents and students in the teaching hospital. It applies to every teaching hospital in the state. He indicated that the letter, the contents of which went into effect on June 1, will have a moderately serious effect on the educational programs that are going on in this country. He indicated that he is on a national council that is trying to deal with this. He stated that his staff is complaining about the things they are going to have to write to comply with this letter, which, he says, contained a whole host of details. Dr. Wiegand said that he was not involved with a teaching hospital, but that he would be glad to communicate with his Committee on problems of this nature if they are made aware of them.—**Referred to Resolutions Committee.]**

REPORTS OF DISTRICT COUNCILORS

Dr. Robert Mayer, Fourth District, thanked Missouri Medicine for the spread they gave St. Louis County Society on the Legislative Dinner. He indicated that St. Louis County is initiating a new program for the fall. They are going to have a joint meeting of all hospital staffs of St. Louis County. This is to be held at Stouffer's Inn and Dr. Christiaan Barnard will be the featured speaker. Mr. Mothershead reported that all St. Louis County Society members have paid their 1969 dues.

Dr. Gunn, Third District, informed the Council that the St. Louis Medical Society is polling its membership on attitudes regarding smoking. The Society will then go on record as advising people in St. Louis accordingly. He then called attention to the two center pages of a recent *AMA News* which was devoted to the St. Louis area rapport between the medical society, medical schools and the medical students.

■ Dr. Miller, Seventh District, stated that applications from three osteopaths for membership have been processed by the Jackson County Medical Society and two have been elected to associate membership.

Allen Smith brought up the matter of a letter from the Board of Healing Arts, requesting physicians to indicate what postgraduate or educational courses they have attended. He said that Jackson County Medical Society contacted Mr. Hailey who indicated that this was not mandatory, but they are merely requesting this information. This is purely a voluntary questionnaire which a physician may or may not fill out.—**Referred to Constitution and By-Laws Committee.]**

■ Dr. McAlhany, Eighth District, reported that the Greene County Medical Society had sponsored a Community Health Care Planning seminar in May which was attended by members of various agencies involved in health care, such as OEO, Welfare, Health, City Administration, various hospitals, etc. He said that they wanted to make it evident that the medical society was taking the leadership in providing health care. More than a hundred people were present. Each organization gave a brief presentation.

Mr. Schnedler stated that an outgrowth of this meeting has been the development of a community medical services council composed of members of the medical profession, ambulance services, police department, etc., to try to set up and approve a program of emergency medical services.

Dr. Stricker, Ninth District, reported that Dr. and Mrs. McCraw attended a recent meeting of his local medical society and that a number of state legislators also were present. He said that the legislators were interested in more information relative to health matters. He stated that he felt it was a good idea to have talks with your legislators from time to time.—**Referred to Miscellaneous Affairs Committee.]**

Dr. Fisher, of the First District, reported that President McCraw had attended his society meeting in May as well as a meeting of the Northwest Missouri Medical Society at Maryville.

Dr. McCraw reported that he and Mr. Cooper had attended 11 County Society meetings or about 20 meetings altogether, including the Missouri University Medical School Dean's Advisory Committee and Crippled Children's Committee, since the MSMA Annual Session. He also stated that he and Mr. Cooper had attended an AMPAC meeting in Washington, D. C., at which information was presented showing that the AMPAC movement has been most successful. This, he said, also applied to Missouri.

Dr. McCraw stated that Dr. Ritter, President of the St. Louis Medical Society, telephoned him on Friday morning stating that the St. Louis Medical Society Council had decided to adopt joint billing for 1970. He said that on his visits to County Medical Societies, he talked briefly about the Foundation, the Medical School in Kansas City, doctor shortage, etc. He further said he had traveled about 7,000 miles in the past two months and had found Missouri a big state.

REPORT OF THE COMMITTEE ON DIABETES

■ The Chairman asked Dr. Roberts to give a report of the Committee on Diabetes Mellitus. Dr. Roberts stated that Dr. Meinershagen of the Missouri Division of Health presented results from a number of diabetes detection studies performed in the past year. The Unopette, a self-filling capillary pipette and a reservoir, was used for obtaining capillary blood in five county screenings. He was of the opinion that the use of this device should

This year, the Missouri State Medical Association honored 14 members for completing 50 years in the practice of medicine. At a ceremony during the President's Banquet on April 4, 50-Year Pins were presented to *(left to right)* Drs. William H. Walters, St. Louis; George H. Thiele, Kansas City; John F. Rutledge, Festus; Lee G. Potter, Kansas City; Carl E. Rice, Crystal City; and Henry Rosenfeld, St. Louis. Honorees who could not be present are Drs. Walter E. Abell, Alfred Goldman, Samuel B. Grant, Oscar C. Heyer, Herman M. Meyer, Elmer Sexton and Richard G. Graeser of St. Louis; and William M. Ketcham of Kansas City.

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be continued for further evaluation. In one location, a comparison study of the Unopette technique and a macro method was made by using the vacucontainer. The blood specimens were run in the Auto Analyzer. However, the plasma glucose determination was compared with capillary glucose values. He said the difficulty of doing a comparison study by these techniques was discussed.

Dr. Roberts indicated that in reviewing the glucose determinations of the first 100 by the two methods, there was considerable discrepancy. He stated that he thought there were approximately 40 states in which the State Health Departments do a considerable amount of detection. He went on to say that it should be noted that although we are trying to detect diabetes, we are detecting other diseases as well.

Dr. Roberts said that it should be kept in mind that there is much discrepancy in the technique of the macro method and the Unopette. He reported the following suggestions made at the Committee meeting:

1. That a pilot study be done comparing a macro method, but using whole blood glucose determinations with the Unopette (capillary determinations).
2. That the participants be given a printed diet of at least 100 gm for the meal prior to the test.
3. "Blood drawers" should be carefully trained for using the Unopette to attempt to reduce the chances of error.
4. That an adequate number of "blood drawers" be used to reduce the chances of increasing the postprandial interval beyond two hours.
5. That the values of the postprandial blood glucose should be increased to 170 mg/100 cc for one hour and 140 mg/100 cc for two hours, particularly when doing screening in older age groups.

Dr. Roberts was asked if he had any further recommendations. He said that we should run more comparison studies to see where we can reduce the discrepancies before we set a standard technique. Dr. Kerr asked if many of the same people came in for the tests. Dr. Roberts indicated that they do have repeats. He stated that efforts are being made to get to people who have a brother, sister, aunt, uncle, etc. with diabetes, people who are over 40 years of age and 20% or more overweight and women who have given birth to large babies.

Motion was made to accept the report of the Committee on Diabetes Mellitus with special attention to the recommendation made by Dr. Roberts. The motion was seconded and carried.

The Chairman stated that this report will be referred to the Interspecialty Committee for information.—**Referred to Medical Education Committee.]**

REPORT OF THE COMMITTEE ON ENVIRONMENTAL HEALTH

■ Dr. Neilson was called upon to give the report of the meeting of the Committee on Environmental Health. Dr. Neilson first presented a preamble to his report indicating the seriousness of pollution in this country (to be published in the August, 1969 issue of Missouri Medicine) and then reported as follows:

The first formal meeting of the Committee was held on April 23, 1969 in Jefferson City. The first consideration was a physical examination form now in use by the Department of Revenue pursuant to state auto driver licensing. The Director of the Department of Revenue has indicated that the driver licensing section has been having difficulty with the form with no apparent solutions. It was agreed that the Committee would review the form now used in Hawaii as a guide, consider other states' forms and make necessary revisions. The final revision will be sent to the Missouri Department of Revenue with emphasis on reducing the length of the form to one page and deleting any statements in the form which might make a physician legally liable. Attention also was called to future implementation by Missouri of the 1966 National Highway Safety Act which establishes certain standards.

The Environmental Health Committee feels that the medical profession should provide the leadership necessary to promote better environmental health conditions. An exhibit plan has been examined, complete with related circulars, etc. Several consultations were held with personnel of the Missouri Conservation Commission and it was agreed by the Committee that the water pollution problem should be attacked first. It was agreed that educational programs should be directed toward individual members of the public to stimulate interest. It also was agreed that all of the educational materials should carry the MSMA headings and, possibly, a statement indicating that "this material or program is provided through the courtesy of your physician." It also was agreed that water pollution control should concentrate on Missouri streams, lakes and ponds. It was agreed by those present that a program of education should be launched by the MSMA. It was suggested that the field staff assist with the display, possibly in cooperation with the Missouri Conservation Commission and physician members of local county medical societies. It was indicated that a Committee budget of $1,500 would cover all committee and display costs. This would provide for the purchase of a carousel projector, a viewing screen mechanism, etc.

Following this formal report, Dr. Neilson requested that the Association provide $1,500 as a fund for initiating the committee's proposals. He stated that a pamphlet which has been produced by the St. Louis Medical Society is available and more will be printed. He said the Committee wishes to have a carousel projector with subjects pertinent to the business of pollution for display purposes at fairs and other such places. He further stated that slides are available for showing.

Dr. Matthews suggested that, possibly, we could work in conjunction with the Department of Resources and Development through the medium of television or some other mass media. He felt that more people would be reached this way than would attend a state fair.

Dr. Neilson said that many people do attend state fairs, pick up pamphlets and, in turn, take them home to other persons. He feels that working in conjunction with the Conservation Commission and other organizations will be a big step toward helping the public to realize the magnitude of this pollution problem. There are many ways in which you can approach this problem. He stated that the Committee had talked about getting refuse bags to give away at boat docks and have printed on them, "Compliments of Your Doctor" or the Medical Association.

Dr. Fisher said that many agencies are already involved in this venture, such as the USPHS, the Corps of Engineers, the Division of Health and others and before we invest $1,500, we should plan some concerted program with other interested agencies and organizations.

Dr. Neilson stated that he felt the Conservation Com-

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bronchitis
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brucellosis
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  infections
gonorrhea
granuloma inguinale
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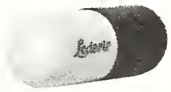

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mission and others would help man a suitable display at the state fair and, further, that he would like to see the Council authorize the spending of up to $1,500 for the Committee's proposals.

Dr. Robert Mayer stated that he would heartily endorse and make a motion to support the Committee report and the financial request.

Dr. McAlhany suggested that this be investigated further for more specifics about what was to be purchased and how much it would cost.

Dr. Franklin said that this is a matter of health importance and he did not feel we should quibble about the cost. He then seconded the motion of Dr. Mayer.

Dr. Fisher moved to table Dr. Mayer's motion with the suggestion that the Committee bring more information and detail to the Council on their proposals. The motion to table was passed.

Dr. Miller stated that he felt the Council was in favor of some type of program regarding pollution control and that we should be involved, but he felt that we are obligated to put this back into the hands of the Committee for additional information, suggestions and a more succinct budget. Dr. Kerr moved that this be returned to the Committee for further study and report back to the Council. The motion was seconded and carried.—**Referred to Medical Education Committee.]**

REPORT OF DELEGATES TO AMA

Dr. Neilson then gave his report on resolutions to be submitted to the AMA House of Delegates at the AMA meeting to be held in New York City on July 13-17, 1969, as follows:

"Your delegation shall present, as instructed by the Missouri House of Delegates' action in March, two resolutions. One concerns Medical Professional Liability Insurance (to be referred to Reference Committee F). Your delegation has been in touch with other states about this matter. Illinois, Ohio, Utah and other states have had serious rate increases in the last year or two. California has had serious statute of limitation problems for several years. Utah has had its problems, too. Recent articles in the *AMA News* have thrown light on these problems.

"The second resolution concerns Recruitment for Nurses and Paramedical Personnel and is self-explanatory. It is referred to Reference Committee G.

"Your Delegation also has been instructed to support the Arizona Resolution which opposes the action of the FDA in removing drugs from the market without any consultation with practicing physicians who use the drugs. The Arizona Delegation feels it to be a short distance from telling physicians what they can't prescribe to telling them what they can prescribe. We shall be present at the Reference Committee and support Arizona's position.

"Your Delegation also has been asked to support efforts on the part of the American College of Allergists and the American Association for Clinical Immunology to obtain a primary Board of Allergy. At present, Allergy is 'sub-boarded' through Internal Medicine and Pediatrics. Apparent clinic time requirements are unrealistic. It is understood that neither Washington University, St. Louis University or Missouri University Medical Schools have had their adult or pediatric clinics approved by the Allergy Sub-Boards. It is said that the present Sub-Boards are controlled by full time academic men, leaving no voice for practicing clinical allergists. We shall attend the hearings and listen to the arguments.

"Dr. Hector Benoit will be a member of Reference Committee "E"; Dr. Loren Washburn has prepared detailed information concerning officers, Board of Trustees and Councils of the AMA and has sent it to the Delegates and Alternates. He will try to keep tab on this year's office vacancies and who is running for what and advise the delegation."

Dr. Peterson suggested that the delegation should go pretty well uninstructed as far as the primary Board of Allergy is concerned. Motion was made that the delegation be instructed to go with open minds on this subject and, in the meantime, discuss this matter with known allergists in their vicinities. Motion seconded and carried.

Dr. Benoit stated that there were some eight or nine resolutions before the AMA House regarding lay laboratories' advertising in the AMA Journal, *JAMA*. He indicated that this was first brought to his attention by some of the members of the Laboratory Committee. He said that they don't care if the laboratory is run by a doctor—the laboratories should not be allowed to advertise in the journal, in their opinion. He said that the legal office of the AMA is very much aware of the discontent regarding this matter. Motion was made and seconded that MSMA Delegates support these resolutions in the House of Delegates. The motion carried.

Dr. Benoit said that the Health Care Financing Committee of the Council of Medical Services, on which he serves as a member, held a meeting in mid-May at which time the so-called Missouri proposal for a study of health care costs was again given an extremely hard look and was favorably received. He stated that Dr. Buesseler appeared on behalf of the proposal and did a fine job. Several other proposals were presented. Utah has done something on a very small basis using a questionnaire and their response was very good. The AMA has been doing some spot checking in the past 18 months, but the cost seems extremely high. No one knows about hospital, pharmaceutical houses, etc. He said that the Missouri proposal compares most favorably with others under consideration. His AMA Committee has firmly approved an in-depth study of health care costs not specifying Missouri. Hopefully, this will go to the Board at the AMA Annual Session.

The Chairman then asked if there were any other resolutions to be submitted to the AMA House of Delegates. Dr. McAlhany presented two resolutions which had been approved by the Greene County Council requesting the AMA to work for continued reimbursement of physician services under Medicare and Medicaid on the basis of usual and customary fees. Several amendments were made to the two resolutions and on motion, duly seconded, the amended resolutions were approved for submission to the AMA House of Delegates. Motion carried.

COMPREHENSIVE HEALTH PLANNING

■ Dr. Robert Kelley was then introduced as a new appointee to the Governor's Advisory Council on Comprehensive Health Planning. He reported that he had attended only one meeting of the Council which was held on April 10. A proposal was made at that meeting that consideration be given to the development of a division in the State Comprehensive Health Planning

Agency to insure liaison between the health disciplines in Missouri. A full-time secretary would head this division. The main job of the division would be to gather information about all the agencies within the state who are involved in planning for health care, whether they be federal, state or local or private; the organizational set-up of the agency; from whom they get their authority; from whom they receive their funding; what their duties are; what they are doing; how much overlap there is with other agencies; and, in general, should be a source of ready information about any such agencies within the state. This Division would be a cooperative agency with a permanent staff supported by contributions from the major state organizations and all the agencies involved in planning for comprehensive health care.

Dr. Kelley stated that the Council meets next Friday and asked if he could have a commitment from the MSMA Council as to whether or not they are interested in joining in a cooperative effort for setting up this type of informational agency. He stated that this agency would not be responsible to the Governor, but to all of the cooperating agencies. Various people and agencies are involved in CHP, but there is no central place to contact for information regarding health planning activities that are going on within the state.

Dr. Matthews indicated that the Auxiliary to MSMA sometime ago tried to secure similiar information on all the health resources in each Missouri county. The Auxiliary found this too great a task. He said that what Dr. Kelley is talking about is extremely needed and our support should be genuine. It would be helpful to individual physicians to know what these various groups are doing and where they get their funds.

Dr. Kerr stated that he felt it is the business of CHP basically to find out what you have in the state. Mr. McIntyre indicated that the Missouri Health Council, with a MRMP grant, did a project about a year ago to determine what the various health agencies and organizations are doing in this state. Dr. William Mayer indicated that, in fact, MRMP did help conduct a survey, but he did not know what mechanism they have of updating that information to keep it current. On motion, duly seconded, Dr. Kelley was instructed to inform the Advisory Council that MSMA is in sympathy with such studies and their being made available to the medical profession, but feels that CHP should do this with funds of the Comprehensive Health Planning Agency. The motion carried.—**Referred to Miscellaneous Affairs Committee.]**

AD HOC COMMITTEE TO STUDY NEW LEVEL OF MEDICAL PRACTITIONER

■ Dr. Edwards was asked to give a report of the MSMA Ad Hoc Committee to study a new level of medical practitioner. Dr. Edwards indicated that the Committee met at the Annual Session and again on the morning of the Council meeting, June 14. Some comments of the previous meetings were sent to the Council along with material from the AMA Legal Department relating to paramedical personnel.

The Committee members have all agreed on a need for more physicians and more ancillary help for physicians to enable them to spread their work further by relieving them of some duties. He indicated that it was realized that there are many of these people now doing this work who have been trained by the physician himself and work under his direction. He said that his Committee is not ready to present a final report and felt that it must first work out the things that these persons would be allowed to perform and, also, a definition of the type of training or education that is necessary. The Committee does not feel qualified to set up the training and education requirements, but believes that this should be done through the medical school with some of the colleges cooperating. The Committee thinks it would be better to have it coordinated at the medical school level and supervised, perhaps, through the Medical Association. The Committee would recommend that any licensure of this "new medical practitioner" be under the State Board of Registration for the Healing Arts. A member of this Committee is on the State Board which will meet on June 20. He is to acquaint the Board with this material. The Committee wondered if there were any medical-legal complications that might evolve from this, but were assured by legal counsel not to be concerned about this at this stage of planning. The Committee plans to meet again and outline recommendations more fully after conferring with school authorities and, perhaps later, will set up a pilot program.

It isn't often that the deans of Missouri's three medical schools are pictured together. They are active in MSMA functions, however, and appear here holding the checks from AMA-ERF which they received for their schools at the General Luncheon on Saturday. *(Left to right)* Missouri's Lt. Gov. William S. Morris, guest speaker at the luncheon; Dean Robert H. Felix, St. Louis University; Dean William D. Mayer, University of Missouri; Dean William H. Danforth, Washington University; and MSMA President Doyle C. McCraw, who presented the checks.

Dr. Miller thanked Dr. Edwards and his Committee for this most important study and report. Motion was made, seconded and passed requesting the Committee to proceed with its study and to report further to the Council.

Dr. William Mayer reported that it had been expressed that there is difficulty in communicating with the Medical Center. One of the problems is the difficulty of trying to contact individual physicians in the Medical Center. He said that his secretary is aware at all times of where he can be located and they are trying to promote this same kind of activity in the offices of the various physicians within the Center. He said the Medical Cen-

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ter will be glad to send out to the physicians in the state a list of the faculty members by departments, along with their telephone numbers, so they may be directly contacted when desired. He stated that this was done approximately seven years ago and feels that it is time to update the information. The faculty felt that before this was done, approval of the MSMA was in order. Dr. Mayer said that the Center is constantly trying to give better service to the physicians in the state. It was moved, seconded and carried that this procedure be approved.—**Referred to Medical Education Committee.]**

REPORT REGARDING OPHTHALMOLOGISTS

■ Dr. Pernoud was called upon to give his report regarding the problem of eye care in the State of Missouri. He stated that, at the request of the Council, a survey was made concerning the number of ophthalmologists in the state, their distribution and a relative idea of how Missouri stands as far as the rest of the country is concerned. He said there is a total of 209 ophthalmologists and 489 optometrists in the state of Missouri. This gives Missouri one ophthalmologist for approximately every 36,000 citizens. If ophthalmological residents are included, there would be approximately one ophthalmologist for every 22,000 citizens in the state.

Dr. Pernoud stated that the total number of ophthalmologists in the United States as of Jan. 1, 1969 was 9,390. This includes all those in practice and in Government services. He said that by way of comparison, Missouri has the highest percentage of ophthalmologists, compared to the total physicians in the state, with the exception of seven other states. He mentioned that most of the ophthalmologists are located in the larger urban areas while the optometrists are located in the more outlying rural areas. He stated that similar to all other fields of medical practice, there is a need for more ophthalmologists and more ancillary help and that concerted efforts are being directed toward alleviating this problem.

Dr. Miller then introduced Drs. Van Peenen and Lucas from the Department of Pathology, University of Missouri, to explain the "Small Clinical Laboratory Improvement Program." Dr. Van Peenen indicated that studies made during the multiphasic testing project of the MRMP showed six basic laboratory tests of most value in detecting patients with heart disease, cancer and stroke. He said they had been using some 12 laboratory tests in the project and selected six for further pilot testing. What the RMP now has in mind is to aid physicians in areas in which extensive laboratory facilities are not available and to improve their laboratory procedures. It has been determined that 60% of the laboratory work the physician uses is provided by small clinical laboratories. It was decided to develop self-contained small laboratory units which can be set up in the physician's office. Maintenance and resupply of the units would be done completely from the Center. Cooperating pathologists in private practice would provide consultation with the pilot physicians. Dr. Van Peenen said that he would like an expression from the Council regarding the pilot proposal.

He stated that they have concentrated on three groups of pathologists for consultation. He said that they also were asking the opinion of the Missouri Osteopathic Association, the Missouri Academy of General Practice and the Missouri Pathology Society. This is to be set up as a pilot project in approximately 12 physicians' offices scattered over rural Missouri. The laboratories also will be equipped to provide immediate response tests, such as blood counts and urinalysis. Dr. Van Peenen was asked how physicians would be selected for participation in the program and he indicated that those who are interested would be considered. He stated that it would, of course, be rural since pathological services are available in the large, urban areas. "We expect the pathologists group to be cooperative," he said. He stated that they would like to add another 12 units later and expand as needed. The 12 sites have not yet been selected. The equipment is provided as a package. Quality control of the units will be accomplished by regular visits by medical technologists associated with the project. The local pathologists will supervise. Dr. Van Peenen indicated that there is marked deterioration in mailing of specimens and the delay of getting the results back are the main reasons for getting this close to the doctors. The total budget for this project is $120,000 for the first year.

Dr. Kerr moved that MSMA accept this proposal and defer any consideration for approval until we hear from our pathology group. Motion seconded and carried.

LEGAL COUNCIL

The Chairman called upon Mr. Noble, legal counsel, for a report on the Missouri State Board of Optometry vs. Curteman and MSMA legal case. Mr. Noble stated that we had some very good witnesses and some excellent testimony. He said that we have until September 1 to prepare a brief and argument on what we feel the law of the case is and its application of the facts, and he felt the Court might reach its decision around October 15.—**Referred to Medical Education Committee.]**

MATTERS REFERRED TO COUNCIL BY 1969 HOUSE OF DELEGATES

■ Mr. McIntyre was called upon to report on matters referred to the Council by the 1969 House of Delegates. He read the resolved portion of the resolution regarding Malpractice Legislation and Insurance introduced by Jasper and Greene Counties and adopted by the MSMA House of Delegates on March 21, 1969. The House directed the Medical-Legal Committee of the MSMA to investigate the subject of professional liability with the view of alleviating or solving the various problems which are increasing in this area. A motion was made and seconded that this resolution be referred to the MSMA Medical-Legal Committee. The motion carried.

Another resolution passed by the House and concerned with Regional Panels for Reviewing Medical Professional Liability resolved that the MSMA should appoint Regional Panels representing all of the various specialties practicing medicine in the state, the purpose of such Panels to review all alleged cases of Medical Professional Liability. It was moved and seconded that this resolution be referred to the MSMA Medical-Legal Committee. Motion carried.

The resolution introduced into the House of Delegates of MSMA under the joint sponsorship of the St. Louis Medical Society and the St. Louis County Medical Society regarding Senate Bill No. 275 concerning Blue Cross and Blue Shield regulation by the State Insurance Department directed the Council and the Legislative Committee of the MSMA to resist the enactment of the proposed legislation by every lawful and appropriate means. Mr. McIntyre indicated that S.B. 275 is still in Committee in the Senate and for this session is dead. No further action needs to be taken regarding this particular resolution.

The resolution introduced by the Jackson County Medical Society regarding the Uniform Anatomical Gift Act has been taken care of. Senate Bill 43 regarding the Uniform Anatomical Gift Act, which we supported, is now law.

The resolution introduced by the Jackson County Medical Society regarding Physician Liability Protection resolved that the House of Delegates of the MSMA sponsor legislation that will provide for the personal liability protection of any physician who may be serving in an official designated capacity as a member of a committee of a medical hospital staff or of a county medical society and it further resolved that statutes enacted in the states of California, Illinois and South Dakota relating to this subject be studied by the Council of the MSMA prior to the introduction of such legislation. It was moved and seconded that this resolution be referred to the Legislative Committee. Motion carried.

The resolution introduced by the Jackson County Medical Society regarding a State Medical Examiner System resolved that the MSMA again reaffirm its position in support of legislation which would provide for a state medical examiner system for the State of Missouri and that a copy of this resolution be sent to the Governor of the state, the Speaker of the House of Representatives and the President of the State Senate. Mr. McIntyre indicated that a copy of this resolution was sent to those specified. The House Bill regarding this is "bottled" in the House Economics Committee and the Senate Bill remains in a Senate Committee.

The resolution introduced by Greene County Medical Society regarding the County Society Officers Conference resolved that this meeting should be continued and that representatives of all component societies should be urged to attend. Mr. McIntyre indicated that he felt no action was necessary by the Council at this time, since there are plans to hold another County Society Officers Conference in conjunction with a Council meeting early in 1970.

The resolution introduced by the Greene County Medical Society regarding comprehensive health planning resolved that this House of Delegates of the MSMA urge Governor Warren E. Hearnes to seriously consider the recommendation of the MSMA regarding a significant number of appointments of physicians, who are in the private practice of medicine, to the Advisory Council for Comprehensive Health Planning in Missouri. Mr. McIntyre indicated that Dr. Robert Kelley has been appointed by the Governor to serve on this Council. A copy of this resolution has been sent to the Governor.

The Third Councilor District introduced a resolution into the House of Delegates urging the Postmaster General of the U. S. to issue a commemorative stamp honoring William Beaumont, M.D. Legislation has been introduced in both the House and Senate regarding this matter. It was introduced by Senator Joynt and Representative Rabbitt.—**Referred to Miscellaneous Affairs Committee.]**

The resolution regarding Student Medical Organizations, introduced by the St. Louis County Medical Society, resolved that the Missouri State Medical Association House of Delegates enthusiastically urge every county and state medical society to initiate and maintain a continuing program of active liaison with students of medical schools within their jurisdictions, especially through active functioning chapters of SAMA. It further resolved that all levels of organized medicine initiate liaison with administrative officials and faculty of medical schools in order to assist in bringing tomorrow's physicians into the mainstream of American medicine.

Dr. Franklin indicated that both Washington University and St. Louis University have pregraduation exercises in the Medical Society Auditorium. Both students and parents like this idea and he understands it is to be continued.

Mr. McIntyre stated that, at the last Council meeting, the Field Secretary was directed to make studies and contacts with various student medical organizations in the state. He has done some of this to date and will continue this activity. The hope is to make good liaison contact between the Student Medical Association and, particularly, the SAMA chapter at Missouri University and to help the local medical societies promote chapters at both Washington and St. Louis Universities.

Dr. Fisher indicated that in the three medical schools in the state, there are a number of Missouri residents and, frequently, the local physicians are not aware of it. He asked if it would be possible to get a list of the medical students that come from Missouri and their home addresses and send them with a copy of the resolution passed by the House to the Presidents of the respective county medical societies so that they are aware of who the students are and can make an effort to invite them to their society meetings.

Dr. William Mayer indicated that he would be delighted to send this information regarding Missouri students at the MU Medical School. It was moved and seconded that the MSMA staff contact the other two Medical Schools and request the names and addresses of the Missouri residents and notify the local medical societies of the medical students from their area and accompany this information with a copy of the above resolution. Motion carried.

■ The resolution regarding emergency ambulance services resolved that the Council of the MSMA be empowered to institute immediate or timely communication to the Governor and the Legislators of the state, bringing these areas of concern to their attention and urging consultation with these interested bodies, including the medical societies, medical schools and medical agencies of this state, public and private, aimed at development of a comprehensive plan for the provision of adequate emergency ambulance services on a statewide basis, possibly by establishing and funding ambulance districts. A copy of this resolution has been sent to the Governor, Speaker of the House and President Pro Tem of the Senate. There have been two or three bills in the Legislature concerned with the establishment of ambulance services and the one bill that did do what this resolution had in mind was bottled up in Committee. It was patterned after the Federal 1966 Law. Missouri is meeting the requirement of the law which states that the states must implement the Federal Law, since Missouri has a full time physician in the Division of Health who is working on this part of the law. A copy of the House of Delegates resolution dealing with emergency

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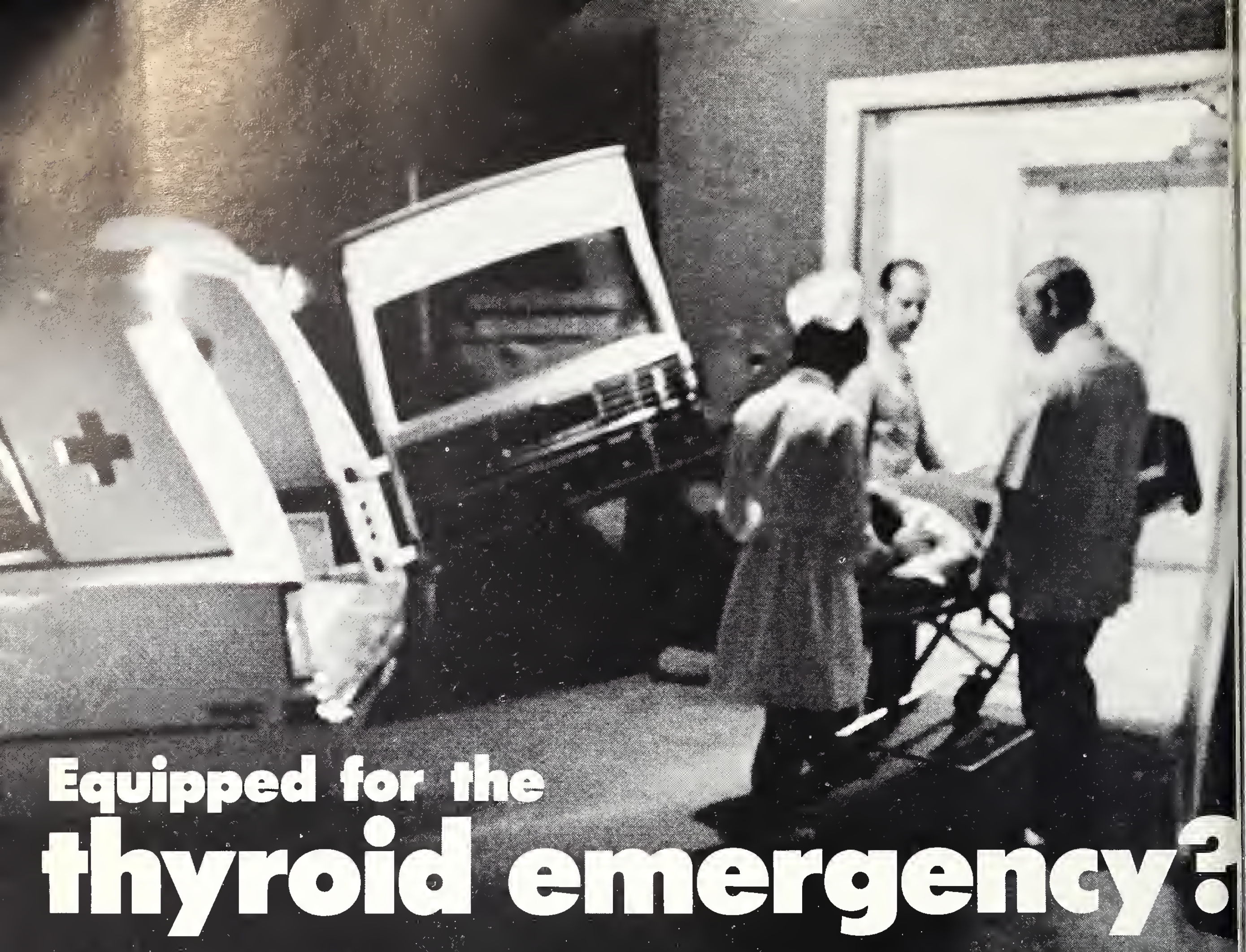

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Levothyroxine has a high binding capacity for serum proteins in contrast to other thyroid medicaments that may contain a thyroactive agent with low binding capacity. *The bound levothyroxine is totally measurable using the serum PBI test. It is not unusual to find PBI levels of 8-10 mcg. per 100 ml. of serum.*

INDICATIONS: SYNTHROID (sodium levothyroxine) INJECTION is specific replacement therapy for diminished or absent thyroid function resulting from primary or secondary atrophy of the gland, congenital defect, surgery, excessive radiation, or antithyroid drugs. It is indicated in myxedematous coma and other thyroid dysfunctions where rapid replacement of the hormone is required. When a patient does not respond to oral therapy, SNYTHROID (sodium levothyroxine) INJECTION may be administered intravenously.

PRECAUTIONS: As with other thyroid preparations, overdose may cause diarrhea or cramps, nervousness, tremors, tachycardia, insomnia and continued weight loss. These effects may become apparent in from 4 days to three weeks. Therefore, patients should be kept under close observation. Medication, in such cases, should be stopped for 2 to 6 days, then resumed at a lower level. In patients with diabetes mellitus, look for possible changes in metabolic activity which may affect insulin or other antidiabetic drug dosage requirements.

CONTRAINDICATIONS: Thyrotoxicosis, acute myocardial infarction.

SIDE EFFECTS: Side effects are secondary to increased rates of body metabolism: sweating, heart palpitations with or without pain, leg cramps, weight loss, diarrhea, vomiting and nervousness. Myxedematous patients with heart disease have died from abrupt increases in dosage of thyroid drugs. In most cases, a reduction in dosage followed by a more gradual adjustment upward will indicate the patient's dosage requirements without the appearance of side effects.

DOSAGE AND ADMINISTRATION: In myxedematous stupor or coma, with no evidence of severe heart disease, 200 to 400 mcg. of SYNTHROID (sodium levothyroxine) INJECTION may be administered intravenously utilizing a solution containing 100 mcg. per ml. Detectable effects are usually observed by the sixth hour after injection and are fully appreciated during the following day. A repeat injection of 100 to 200 mcg. may be given on the second day if significant improvement has not occurred. The intravenous use of sodium levothyroxine in myxedematous coma is advantageous because it produces a predictable increase in the concentration of protein-bound iodine, eliminates the need for multiple doses until oral therapy is reinstated, circumvents the uncertainty of oral absorption, and avoids the risk of pulmonary aspiration.

SUPPLIED: SYNTHROID (sodium levothyroxine) INJECTION is supplied in 10 ml. vials containing 500 mcg. of lyophilized active ingredient and 10 mg. of Mannitol, N.F.; a 5 ml. vial containing Sodium Chloride Injection, U.S.P. is provided as diluent.

Also supplied as SYNTHROID (sodium levothyroxine) TABLET in color coded compressed tablets, and in seven strengths: 0.025 mg. (orange), 0.05 mg. (white), 0.1 mg. (yellow), 0.15 mg. (violet), 0.2 mg. (pink), 0.3 mg. (green), and 0.5 mg. (blue). Each strength is supplied in bottles of 100 and 500 tablets.

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ambulance services under Medicaid has been sent to the Missouri Division of Welfare.

The resolution opposing the repeal of the Motor Vehicle Inspection Law is being implemented. Amendments will be made to the present law.—**Referred to Miscellaneous Affairs Committee.]**

■ The resolution regarding shortage of nurses resolved that MSMA start a vigorous program of promotion of schools of nursing within the state. It further resolved that this body go on record as urging the subsidization of all schools of nursing in Missouri in order to alleviate the financial bind and the critical need for additional qualified nursing personnel. The motion was made and seconded that this resolution be referred to the Committee on Nursing and Paramedical Personnel. The motion carried.

The resolution regarding Cardiac Resuscitation resolved that the MSMA, at its convention on March 20-23, 1969, empower the Council of the MSMA to urge the Legislature of the state to formulate a bill that would, thereby, free the individual registered nurse and the selectively trained personnel from untoward action and liability in the courts of Missouri for this procedure. It was moved and seconded that this resolution be referred to the Legislative Committee. Motion carried.—**Referred to Medical Education Committee.]**

REPORT OF THE COMMITTEE ON SCIENTIFIC AND POSTGRADUATE WORK

■ Dr. Yore was asked to give the report of the Committee on Scientific and Postgraduate Work. He stated that he would give only the highlights of the May 4 meeting. Dr. Yore reported that 726 M.D.'s registered at the 1969 Annual Session, which was the best physician-attendance in a number of years. Forty-nine Missourians participated in the 1969 program, in addition to a good number of out-of-state guest speakers. Dr. Yore stated that the 1970 meeting at the Muehlebach Hotel in Kansas City on April 2-5 will offer a two-day scientific program with a variety of presentations which should interest the entire membership. He said that two and three sessions will run concurrently with numerous panels sponsored by various specialty groups and certain committees of the Association. A number of luncheon sessions will be held on Friday and Saturday, April 3 and 4. He furnished the Council members with a detailed tentative program of the 1970 session for approval and future reference.

Dr. Yore and his committee were commended for the fine 1969 annual session program. Motion was made, seconded and carried to approve the report of the Committee on Scientific and Postgraduate Work.

Following his report Dr. Yore stated that discussion was given by the committee to a larger effort by MSMA in continuing education for the membership. Mr. Gail Bank, Secretary of the University of Missouri Medical School Continuing Medical Education Committee, made suggestions in relation to this matter. It was moved and seconded that this matter regarding continuing education also be referred to the Medical Education Committee for study and recommendation.—**Referred to Medical Education Committee.]**

A discussion followed regarding ths site of the 1971 Annual Session in St. Louis. Mr. McIntyre stated that the facilities at Stouffer's Inn, St. Louis, have been investigated. The pros and cons of this site were discussed. Tentative dates are being held at the Inn. It was moved and seconded that this site for the Annual Session for 1971 be favorably considered, if satisfactory arrangements can be made.

COUNCILS AND COMMITTEES OF AMA BOARD OF TRUSTEES

Mr. McIntyre indicated that he had received information from the AMA concerning recommendations of

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The Presidents' Banquet provides an opportunity to again introduce and honor the Past-Presidents of the MSMA. Past-Presidents who attended the 1970 Banquet are *(left to right)* Drs. David N. Kerr, Clayton; Hector W. Benoit, Jr., Kansas City; Byron M. Stuart, Boonville; Ralph Perry, Kansas City; Paul R. Whitener, St. Ann; Kenneth C. Hollweg, Kansas City; Donald M. Dowell, Chillicothe; Victor B. Buhler, Kansas City; H. E. Petersen, St. Joseph; Guy N. Magness, University City; W. A. Bloom, Fayette; C. Souter Smith, Springfield, wife of the late Wallis Smith, Past-President; Robert Mueller, St. Louis; and James R. McVay, Kansas City.

A memorable moment for each new MSMA President occurs when he accepts the traditional President's gavel. Incoming President Joseph L. Fisher *(right)* accepts this badge of office from retiring President Doyle C. McCraw. This gavel has been used by the President at the Annual Sessions for many years. The presentation was made at the Presidents' Banquet.

physicians for vacancies on Councils and Committees of the AMA Board of Trustees. This information has been sent to the Officers, Councilors, AMA Delegates and Alternates, Secretaries and Executive Secretaries of county medical societies. It was suggested that this information also be sent to the Interspecialty Committee and Mr. McIntyre stated that this would be done. Biographical information is needed on any physician recommended. This information is to be sent, along with the physician's name and the Council or Committee for which he is being recommended, to the MSMA office as soon as possible since this needs to be sent to the AMA prior to August 4.

MISSOURI MEDICAL ADVISORY COMMITTEE TO SELECTIVE SERVICE

Dr. Miller reported that Dr. William Shaw, Chairman of the Missouri Medical Advisory Committee to the Selective Service, has retired and MSMA has been requested to submit three names for consideration as a replacement for Dr. Shaw. After some discussion it was moved, seconded, and passed that the following three nominees be submitted as requested: David N. Kerr, M.D., St. Louis; Merritt H. Kimball, M.D., Kansas City; and Joseph S. Summers, Jr., M.D., Jefferson City. It was brought out that Dr. Shaw has put forth significant effort on behalf of the citizens of this state and it was felt that the Council should acknowledge his fine service.

It was moved and seconded that a letter signed by the President of MSMA be written to Dr. Shaw acknowledging his work and efforts as Chairman of the Missouri Medical Advisory Committee to Selective Service. Motion carried.

COUNTY SOCIETY OFFICERS CONFERENCE

Dr. Gunn discussed plans for the next County Society Officers Conference. He suggested that this Officers Conference be held in conjunction with a Council Meeting, which would cut down on travel for many of the participants. Dr. Gunn submitted for the Council's consideration the possibility of the Council beginning its meeting on Friday morning, continuing through Friday and Saturday morning and starting the Officers Conference on Saturday PM. He proposed the dates of January 30, January 31 and February 1, 1970 at the Ramada Inn, Jefferson City for these meetings.

A motion was made and seconded that these dates be set for the Officers Conference and the Council meeting to be held at Ramada Inn as proposed. Motion carried. Attention was called to the fact that many of the county society officers are elected in the fall of the year and will have been in office several months before the Officers Conference is held.

NEXT COUNCIL MEETING

Dr. Fisher invited the Council to St. Joseph for the next Council Meeting in September. His invitation included golf on Friday and meetings on Saturday and Sunday. On motion, duly seconded, the dates of September 5, 6 and 7 were agreed upon for the Council meeting to be held in St. Joseph at the Roubidoux Hotel. Dr. Martin stated that if anyone planned to fly to the Council Meeting, transportation will be provided from Kansas City to St. Joseph.

The President commended the Chairman for doing a splendid job. The meeting adjourned at 12:15 PM.

Meeting of Sept. 6-7 1969

The MSMA Council met at the Robidoux Hotel in St. Joseph on Sept. 6-7, 1969 with Chairman Gerald L. Miller, M.D., Kansas City, presiding. Those in attendance were Drs. Miller; Doyle C. McCraw, Bolivar; Joseph L. Fisher, St. Joseph; Max S. Franklin, St. Louis; John I. Matthews, Jefferson City; David N. Kerr, St. Louis; John N. Martin, St. Joseph; Lysle M. Bach, Hannibal; Walter T. Gunn, St. Louis; James C. Cope, Columbia; William D. Bradshaw, Clinton; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; Eugene T. Hansbrough, Poplar Bluff; E. D. Imes, Maryville; William C. Allen, William D. Mayer, Columbia; J. Loren Washburn, Versailles; Hector W. Benoit, Jr., Kansas City; Arthur W. Neilson, St. Louis; Stanley S. Peterson, Daniel L. Yancey, Springfield; Byron M. Stuart, Boonville; Messrs. John W. Noble, Kennett; Tim Norbeck, St. Louis, AMA Field Representative; Hollister Smith, St. Louis; Gary L. Schnedler, Springfield; Allen D. Smith, Kansas City; Edward M. Hirsch, St. Joseph; Robert Carroll, Royal O. Cooper, and Ray McIntyre, Staff, Jefferson City.

The Chairman opened the meeting and requested approval of the Council minutes of June 14-15, 1969. On motion of Dr. Fisher, duly seconded, the minutes were approved as printed.

Dr. Franklin reviewed the financial report which was submitted as of Aug. 31, 1969, copies of which were distributed to the Council and Officers. It was pointed out that due to the Curteman Case, there will be additional legal fees and expenses this year. After discussion, on motion of Dr. Bradshaw, duly seconded, the financial report was approved.

MSMA Legal Counsel gave a brief report on the Curteman Case indicating that the court's decision in the case is expected within the next 60 to 90 days.

REPORT OF THE EXECUTIVE SECRETARY

Mr. McIntyre reported that Dr. Kerr had been appointed Chairman of the State Medical Advisory Committee to Selective Service. He will replace Dr. William Shaw who resigned because of illness.

He also reported that $100 has been given by MSMA to the Student American Medical Association (SAMA) for a sustaining membership for 1969.

The Executive Secretary said that members of the Kansas City Blue Shield staff visited the MSMA office in July to learn more about the activities of MSMA, committee structure and functions and relationships of county medical societies with the State Association.

He reported that Dr. Lucas of the University of Missouri Medical School had contacted the Laboratory Committee of the State Medical Association requesting their approval for a pilot laboratory testing program in rural Missouri. The Laboratory Committee has not met to consider this request. The Committee desires to have Dr. Lucas meet with them and to fully explain the pilot program before making a recommendation to the Council.

Mr. McIntyre announced a number of AMA meetings which are scheduled, as follows: Regional Conference on Voluntary Health Agencies scheduled for October 12 in Indianapolis; the AMA Council on Medical Service is holding a regional meeting on Peer Review in Chicago on October 5; the Judicial Council of the AMA is holding a regional meeting on October 5, in Chicago; AMA Committee on Quackery is sponsoring a Regional Conference on Health Quackery on October 23 in Chicago. Plans are to have official member representatives of MSMA plus staff personnel attend all of these sessions.

Mr. McIntyre called attention to the Annual Meeting of the Missouri Health Council to be held in Jefferson City on September 23.

He announced that a Special Session of the Legislature has been called for September 8 to consider increasing certain state taxes to finance various state programs and operations.

Mr. McIntyre reported that at the direction of the Council, prior to August 4, a substantial list of names of MSMA members was sent to Dr. Howard of the AMA for consideration for appointment to various AMA Councils and Committees.

Mr. McIntyre reported he had investigated possible new locations for the 1971 Annual Session in St. Louis, as per instructions from the Council. In view of the facilities needed in order to accommodate the Woman's Auxiliary, the Medical Technologists and various other organizations who meet in conjunction with the State Association and improved arrangements with the Chase Hotel for the MSMA 1971 meeting, on motion of Dr. Gunn, duly seconded, it was agreed to hold the 1971 MSMA Annual Meeting at the Chase Hotel, April 15-18.

The Executive Secretary reported that the AMA Council on Occupational Health is meeting in St. Louis on September 15-16. He stated that Dr. Richard Sutter of St. Louis County is a member of that Council.

Dr. Miller reported that Dr. William Bradshaw of Clinton, Councilor of the 6th District, had been appointed to the State Board of Health by Governor Hearnes and confirmed by the Missouri Senate.

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A highlight of the President's Banquet and a complete surprise to all MSMA officers and members occurred when Mrs. James A. Reid, 1969-1970 President of the Woman's Auxiliary to the MSMA, presented a check for $1,000 from the Auxiliary to President Doyle C. McCraw for the Missouri State Medical Foundation. The money had been earned for the student loan fund by members of the various county medical society auxiliaries throughout the state. Mrs. Reid then added to this contribution by presenting clever corsages made of one-dollar bills to *(left to right)* President McCraw; Mr. Tom Fox, Assistant Secretary of the Foundation; and President-Elect Joseph L. Fisher.

REPORT OF THE PRESIDENT

Dr. McCraw reported that at the AMA meeting in New York, the Missouri Delegation held a reception for Dr. and Mrs. James Whittico, a member of the Missouri State Medical Association and then President of the National Medical Association. He read a letter from Dr. Whittico expressing thanks and appreciation to the MSMA for this occasion.

Dr. McCraw also reported that he had received a letter from Dr. H. V. Guhleman of Jefferson City complimenting the staff and those physicians who assisted the staff in the Association's activities during the regular 1969 session of the Missouri Legislature.

■ Dr. McCraw also mentioned that he had received a letter from Dr. Clayton of Missouri University Medical Center requesting approval of MSMA for a project entitled "Drug Information Central" at the University of Missouri Medical Center. Dr. McCraw stated that the Missouri Regional Medical Program would fund this project. After discussion, it was moved, seconded and passed that the project be approved.

Dr. McCraw said that the Missouri Academy of General Practice was resubmitting an application to the Missouri Regional Medical Program for approval of the Cervical Cancer Detection Program. Dr. William C. Allen reported the program was submitted to Washington and was turned down because of lack of information. It was suggested that the program be rewritten, giving more emphasis on the aspects which will involve the medical association, and that calls on physicians be made to explain the format of the program to see if they would be willing to participate. After discussion, on motion, duly seconded, it was agreed that approval be given to resubmit the application again.

Dr. McCraw called attention to an editorial written by Dr. Danforth of Washington University Medical School, which appeared in the September 11 issue of *JAMA* regarding the possibility of medical schools working together on a regional basis, with some of the schools stressing the training of doctors to go into practice and others emphasizing research.

He aslo presented a letter from the Student AMA asking support for the restoration by Congress of the Federal Health Professions Student Loan Program budgetary cutbacks. It was decided to take no action on this matter at this time.—**Referred to Miscellaneous Affairs Committee.]**

■ Dr. McCraw reported on a letter received from the Michigan State Medical Society regarding a Task Force meeting to discuss the rising cost of Medicaid; peer review, etc. He also reported on a few physicians' charges under Medicaid, showing copies from the Welfare Department, indicating some problems of the Welfare Department in the Medicaid program. He stated that copies of these charges have been sent to the various specialty review groups for clarification and review.

After considerable discussion of this particular subject, it was decided that the issue of peer review be tabled until Sunday at which time the matter would be brought up for more extensive discussion.—**Referred to Resolutions Committee.]**

REPORT OF THE FIELD SECRETARY

Mr. Royal Cooper explained that sometime ago it was reported that a few county societies had been approached by members of the Student Health Organization requesting permission to assist with the health needs of the communities. He reported that the Boone County Medical Society spent approximately three years studying medical needs and ways in which students could be of service in operating evening clinics. Not only medical students, but students of social work and nursing could be utilized. The main obstacle in the plan was the fact that once the clinics are developed, continuity must be guaranteed with or without student assistance. The St. Louis County resolution adopted at the last Annual Session recommended that all county societies and MSMA maintain active liaison with medical schools and students to assist in bringing tomorrow's physicians into the mainstream of medicine.

At the last Council meeting, the staff was instructed to contact the various medical schools and to obtain the names and addresses of students registered from Missouri. The MSMA staff contacted 29 medical schools and received replies from 16 of the schools. A copy of the resolution, along with a letter and a list of the students from their areas, were sent to the Presidents of the County Medical Societies. Thirty-nine County Societies have received such lists. There is a total of 490 Missouri residents in medical schools.

It was reported that several county societies have planned meetings with medical students. The St. Louis Medical Society has planned a meeting on September 14 for medical students from St. Louis University, and they plan another meeting for Washington University medical students in the near future. Also, Cole County Medical Society plans to have a meeting with medical students in September.

Mr. Cooper called attention to the President's Page in the September, 1969 issue of Missouri Medicine in which Dr. McCraw pointed out the need for every physician to make an attempt to meet these young future physicians and encourage them to obtain their degrees and to locate in Missouri.

After further discussion, it was moved by Dr. Fisher, seconded and approved that the President appoint an Ad Hoc Committee of persons involved in medical education to study MSMA liaison with medical students and request the Committee to recommend a course of action for MSMA and report back to the Council.

COUNTY MEDICAL SOCIETY OFFICER'S CONFERENCE

Dr. Gunn, Chairman of the Public Service Committee, reported that the Annual County Medical Society Officer's Conference is scheduled for Saturday afternoon and evening, January 31 and Sunday morning, Feb. 1, 1970 at the Ramada Inn, Jefferson City. He stated that the program will follow the same format as that of former years, beginning at 1:45 PM on Saturday, January 31, with a speaker from the AMA, and a program on Comprehensive Health Planning and, also, a program on Legislation. There will be a dinner on Saturday night with U. S. Senator Thomas F. Eagleton as the featured speaker. The program will resume on Sunday morning at approximately 8:30 AM and will include discussion groups with county society officers. Details of the program will be furnished later when the program is finalized.

It was noted that this conference will be held in conjunction with the Council meeting on Friday, Jan. 30, 1970 and Saturday morning, January 31.

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COUNCILOR DISTRICT REPORTS

Dr. Gunn reported that the *St. Louis Post-Dispatch* recently devoted an entire section to advertising the St. Louis Medical Society's Medical Museum. He also stated that the Society's President and Committee on Environmental Health are working on the air pollution problem in St. Louis. He also reported on the get-acquainted party for St. Louis University medical students and their wives, and on tentative plans for a similar party for Washington University medical students in the near future to be sponsored by the St. Louis Medical Society.

Dr. Bradshaw reported that West Central County Medical Society had a very good meeting at Nevada which included athletic coaches and directors and physicians. He stated that between 90 and 100 people were in attendance. He stated also that plans were to hold a Sixth Councilor District meeting some time later this year.

Dr. Miller reported that the Seventh District had a relatively quiet summer. He stated that they had participated in the organization of the Mid-America Comprehensive Health Planning Agency and, also, in securing private funds for the continued development and planning of the Kansas City Medical School, which is supported by MSMA.

Dr. McAlhany of the Eighth District reported on the Athletic Injuries Conference held in Springfield recently with 130 coaches present. He also reported that Greene County Medical Society has a standing committee which meets monthly with the city government and the city health officials to review health problems and work with local OEO officials to guide and help supervise some of their local health planning.

Dr. Hansbrough, Tenth District, reported on a regional meeting to be held on October 19 in Cape Girardeau, which is the annual meeting of the Southeast Missouri Cancer Conference. He stated that the program will be presented by ten local area physicians who will present papers on Sunday afternoon, with a discussion of these papers to follow dinner. He indicated this meeting will attract approximately 200 physicians from Illinois, Arkansas, Tennessee and Missouri. It is sponsored by the Missouri Chapter of the American College of Surgeons and the Missouri Chapter, American Cancer Society.

BUDGET COMMITTEE APPOINTED

The following members of the Council were appointed to the Budget Committee for 1970 by Dr. Miller: Drs. Max S. Franklin, Chairman; Joseph L. Fisher; Walter T. Gunn; Doyle C. McCraw; E. A. Stricker; and Gerald L. Miller.

It was announced that the Budget Committee will meet on Friday afternoon, December 12, at 2:00 PM, the day prior to the regular Council meeting on Dec. 13-14, 1969 at the new Holiday Inn Downtown, Jefferson City.

ANNUAL SESSION COMMITTEE ON ARRANGEMENTS

The following members were appointed to the General Committee on Arrangements for the 1970 Annual Session in Kansas City, April 2-5: Drs. Gerald L. Miller, Chairman; William D. Bradshaw, Clinton; and John N. Martin, St. Joseph.

REPORT OF COMMITTEE ON LEGISLATIVE MATTERS

■ Dr. Matthews, Chairman of the Legislative Matters Committee, presented a brief run-down on legislative activities during the past General Assembly and reviewed a *Legislative Bulletin* which had been prepared and distributed to each Councilor for study. Dr. Matthews urged the Councilors to take a personal interest in legislative matters. He urged other members of their Districts to do the same since health legislation is becoming more important each year. He predicted that we will have to extend our activities more and more for each session.

He stated that the *Legislative Bulletin,* which is a resumé of the actions of the legislature in this past session, is important enough, in his opinion, to be sent to each and every member of the Association in a special mailing. He said that he feels it is becoming increasingly important that physicians recognize that the number of bills on health care is increasing more and more each session.

After discussion, on motion of Dr. Kerr, duly seconded, it was agreed that the *Legislative Bulletin* be circulated to the individual members of the Association by special mailing.

It also was suggested that the President's Page in Missouri Medicine call attention to this bulletin and point out how important it is for every member of MSMA to become acquainted with his representative and keep the line of communication open.

Dr. Matthews also referred to two proposals from the House of Delegates regarding developing legislation for the next session of the Legislature and stated that the Committee plans to study these items.—**Referred to Miscellaneous Affairs Committee.]**

AD HOC COMMITTEE TO STUDY A NEW LEVEL OF PRACTITIONER

Dr. Imes presented the report of the "Ad Hoc Committee to Study a New Level of Medical Practitioner" in the absence of the Chairman, Dr. Edwards. He stated that three meetings had been held by the Committee and, after general discussion on all aspects of this subject, the Committee reached the following conclusions:

1. A need does exist for a new type of medical assistant.
2. A role definition must be established in general terms.
3. Schools of higher education with medical facilities exist which are potentially capable of providing the training necessary.
4. Sources of Candidates are: nurses, former military corpsmen, technicians, physical therapists and other qualified, interested persons and high school students interested in the health field.
5. The Committee felt that since the activities of the physicians assistant would be under the direct supervision of licensed physicians and not as an independent practitioner, licensure is not desirable or necessary. Certification would allow some measure of contact and knowledge of their location and movement from one area to another. Certification is the recommended technique of promoting the training qualifications and certification procedures with re-

quirements initially approved by MSMA and other groups. The Committee felt that organized medicine should maintain some control over the certification and training programs.

The Committee recommended that the Council, through other committees of MSMA, expedite the further study of this program.

During discussion of this report, it was pointed out that the University of Missouri already has begun setting up an allied health training program under the direction of Dr. Jack Colwill, who also is a member of the above Ad Hoc Committee.

After further discussion, on motion of Dr. Cope, duly seconded, the report was accepted and was referred by the Chairman of the Council to the Interspecialty Committee for further study, with a directive to report back to the Council.

REPORT OF AMA ANNUAL CONVENTION

Dr. Benoit, AMA Delegate, was requested to give a resumé of actions taken by the AMA House of Delegates at the Annual Convention held in New York City on July 13-17, 1969. His report follows:

The Council on Constitution and Bylaws recommended an amendment to the Bylaws to provide that the Sturgis Parliamentary Procedure be adopted instead of Robert's Rules of Order in governing the conduct of the House. Adopted.

■ The Council on Constitution and Bylaws presented a bylaw amendment to permit qualified Doctors of Osteopathy to become active members in the AMA. After House amendment, the Bylaw change was adopted.—**Referred to Constitution and By-Laws Committee.]**

Resolution # 94 proposed to increase the Board of Trustees from 15 to 17 members by adding the Vice-President and the Speaker of the House as additional voting members of the Board. This was not adopted.

A report by the Board of Trustees regarding health care costs was made in response to Resolution # 39 at the 1968 Clinical Meeting, which requested that they develop and expand programs to analyze, define and disseminate information concerning the costs of health care. The report outlined the activities of the AMA and of other organizations pertinent to the objectives of this resolution and called for continued support of these activities and the full participation of physicians. This report was adopted.

■ A report of the Board of Trustees informed the House regarding actions taken by the Board concerning Medicaid prior to the adoption of the July 1, 1969 Medicaid regulations and cited several action programs being instituted by state and county medical societies, such as expanded peer review programs, eradication by the medical profession of the isolated abuses by physicians, etc. The report was adopted.

Another report of the Board of Trustees discussed investigations of the cost of Medicare and Medicaid being conducted by the Senate Finance Committee. The report strongly urged that peer review be assigned to the highest priority by the state and county medical societies and that quick and decisive action be taken to discipline those physicians who are determined to abuse Medicaid and Medicare. This report was adopted.

The report of Council on Medical Service regarding AMA Support of Broad Voluntary Health Insurance Programs encouraging all types of health insurance carriers to promote the offering of expanded benefit programs was adopted and a copy is to be sent to state and county medical societies urging their support.

The report of the Council on Medical Service regarding "The Medical Profession and Peer Review" outlined the program designed to further stimulate the application of the peer review concept and urged the implementation of peer review mechanisms. This report was adopted and is to be distributed to all state and county medical societies.

Resolution # 37 supported the development of prepayment and health insurance programs based upon UCR fees, suggested that such terms be defined and agreed upon in advance by all parties involved and specified that resulting payments be accepted by physicians as proper compensation for the services rendered. The House concurred with the general purpose of Resolution # 37, but amended it and adopted the resolution as amended.

Ten resolutions were introduced opposing unilateral determination of acceptable ranges of fees, either in Medicare or Medicaid by HEW. The House considered a substitute resolution in lieu of these ten resolutions, resolving that the AMA urge a reassessment by Congress of its intent and priorities in relation to Title XIX. The substitute resolution was adopted.

Resolution # 61, Medicaid—asked that the House rescind that portion of Resolution # 12 of 1968 Clinical Meeting which reaffirmed Association support of Medicaid, thereby withdrawing its endorsement of the program. The resolution not adopted.—**Referred to Resolutions Committee.]**

■ Eight resolutions referred to the establishment of a certifying board in the specialty of allergy. These reso-

Newly-installed MSMA President Joseph L. Fisher *(right)* was surprised and deeply appreciative of the special gift presented to him by Dr. Owen W. D. Craig of St. Joseph, President, on behalf of the members of Buchanan County Medical Society as a token of their pride in Dr. Fisher as one of their members.

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Newly-installed MSMA President Joseph L. Fisher *(right)* presents to his predecessor, Doyle C. McCraw, a plaque expressing the Association's appreciation for his year of service and leadership as President. Dr. McCraw will continue as a member of the Council for another year.

lutions were referred to the Council on Medical Education, requesting a progress report at the 1969 Clinical Convention.

A joint report of the Council on Medical Education and Board of Trustees called for an increase in financial support of medical schools by the federal government to permit a major increase in the enrollment of medical students and the production of physicians. The report was adopted.—**Referred to Medical Education Committee.]**

■ A resolution dealing with the subject of awarding M.D. degrees to qualified osteopaths who may complete an approved curricula on the postgraduate level was referred to the Council on Medical Education.

A report of the Board of Trustees stated that several specialty boards have taken action to permit examination of osteopathic graduates for certification.

Report of the Board of Trustees on physician relicensure reviewed a study by the Council on Health Manpower on the subject of physician relicensure and continuing education. Both the Board and the Council recommended that a relicensure program not be considered at this time, but that methods of maintaining quality medical care through peer review evaluation and continuing education be extended and improved. The report of Board of Trustees approved.

Reports of the Council on Medical Education dealt with the participation of doctors of osteopathy in AMA-approved internships and residencies. It brings the "Essentials of Approved Internship and Residencies" into conformity with AMA policy. Both reports were adopted. —**Referred to Constitution and By-Laws Committee.]**

■ One resolution would have required that AMA appointments to the Joint Commission on Accreditation of Hospitals be limited to physicians actively engaged in the private practice of medicine. The resolution was not adopted.

Resolution # 9—Participation of Doctors on Hospital Staffs in Building Programs would have had the AMA request the JCAH to suspend or withdraw the accreditation of a hospital upon proof of coercion of physicians to contribute to building funds by threat of loss of their privileges. Resolution # 9 was not adopted.

Resolution # 71 concerned unearned markups on referred laboratory work and reaffirmed statements in the Judicial Council opinion entitled, "Laboratory Services," presented to the House at the 1967 Clinical Convention. The House considered and adopted a substitute resolution.

A report of the Board of Trustees transmitted to the House of Delegates for its information the report of the management study of the Association together with comments of the Board of Trustees. It indicated that the study had been terminated.

Resolution # 18 requested the Board of Trustees to explore the feasibility of a visit to each state medical association at least once every two years by a member of the Board. A substitute resolution indicating that they visit state medical associations upon request was adopted.—**Referred to Medical Education Committee.]**

■ Report D of the Board of Trustees was considered together with six resolutions, all relating to problems of of professional liability, liability insurance or both. The House adopted the following recommendations derived from Report D of the Board of Trustees: (1) That constituent associations seek the enactment of appropriate state legislation; (2) That constituent associations, with AMA assistance, seek cooperation of hospital associations and third party payers in exploring and developing pilot programs; (3) That workshops on malpractice insurance problems be conducted.

Resolution # 24 asked that the field staff of the Division of Public Affairs be divested of its AMPAC responsibilities. This resolution was referred to the Board of Trustees for its careful consideration and appropriate action.—**Referred to Miscellaneous Affairs Committee.]**

■ Four resolutions were introduced concerning nursing and paramedical education and recruitment. These were considered together and a substitute resolution was adopted in lieu of these, resolving that the AMA reaffirm its support of all forms of nursing education; encourage the continuation of subsidies to schools of nursing; that AMA take appropriate action to increase the enrollment; and that appropriate steps be taken to encourage recruitment into the health professions.

Several resolutions were introduced regarding cigarette smoking and the advertising of cigarettes. By combining these resolutions, the House urged its members to play a major role against cigarette smoking and directed the AMA to indicate to the Congress the incongruity of the expenditure of tax dollars to promote the production and sale of tobacco and at the same time spend other tax dollars to discourage cigarette smoking.

Three resolutions were introduced regarding sex education in schools. The House adopted a substitute resolution in lieu of these three resolutions which stated that the primary responsibility for family life education is in the home, but that the AMA support in principle the inauguration by State Boards of Education or school districts voluntary family life and sex education programs at appropriate grade levels.

Two resolutions were introduced regarding Medical

Charge Cards and Credit Card Payments to Physicians. The House expressed the opinion that the AMA should reaffirm the opinion of the Judicial Council regarding the "Principles to be implemented and applied as necessary by the county medical societies for the guidance of physicians" as bank and other credit card systems develop. These principles were reiterated and the resolutions referred to the Judicial Council.

The Chairman thanked and commended Dr. Benoit for his fine report on the AMA House of Delegates Actions at the New York AMA Convention.

Dr. Miller requested MSMA Legal Counsel to investigate the Sturgis Parliamentary Procedure to determine if this procedure should be adopted by MSMA.—**Referred to Medical Education Committee.]**

The Chairman directed that the report of the Board of Trustees Committee on Osteopathy regarding implementation of the policy established at the Miami Clinical Convention in 1968 be referred to the Interspecialty Committee. He then directed that the Florida Resolution # 65 dealing with the subject of awarding M.D. degrees to qualified osteopaths through the development of curricula on the postgraduate level be referred to the Committee on Medical Education.

Dr. Neilson was called upon for any comments he had regarding the AMA Convention. Dr. Neilson stated that MSMA has an excellent group of physicians who serve as delegates and alternates. He reported that Dr. Benoit was one of four physicians voted on by the House for a vacancy occurring on the Council on Medical Service. He said that even though Dr. Benoit lost, it was a definite compliment for him to have been one of four considered in view of his short period of service as an AMA Delegate.

After discussion, it was decided that the Council recommend to the AMA Board of Trustees that Dr. Benoit be considered for further vacancy on the Council on Medical Service. The Council also voted to recommend to the AMA Board of Trustees that Dr. Neilson be appointed to the Council on Environmental and Public Health.

A motion was made, seconded, and passed that letters recommending Dr. Benoit for the Council on Medical Service and Dr. Neilson for the Council on Environmental and Public Health of the AMA be sent to the AMA Board of Trustees. Dr. Benoit and Dr. Neilson were requested to send their curriculum vitae to the MSMA office so they can be included in the letter to be sent to AMA. Drs. Peterson and Washburn added brief comments to the reports of Drs. Benoit and Neilson.

COLLEGE OF AMERICAN PATHOLOGISTS

■ Dr. Benoit stated that in 1966 the U. S. Justice Department filed a suit against the College of American Pathologists accusing the CAP of a conspiracy to monopolize the medical lab testing industry by controlling the nation's commercial laboratories, through price fixing and boycott tactics. The Justice Department charged that the CAP intended to keep all nonmembers out of the field, keep charges at artificially high levels and keep purchases at artificially low levels. The College of American Pathologists maintained that it had never engaged in any of these practices alleged by the government in its suit and maintained that the College's activities were nothing more than the effort of a professional group to regulate the professional conduct of its members by passing reasonable codes of ethics.

He said that the CAP has entered into a Consent Decree with the U. S. Department of Justice on these civil antitrust charges. The terms of the decree restrain the

Everyone attending the President's Banquet this year was "serenaded" as this trio of musicians moved from table to table. This new innovation in MSMA-banquet entertainment gave everyone an opportunity to request a favorite tune, whether it be country music, a popular dance tune or a "good ole singin' song"! More than 270 physicians, their wives and guests attended this event in the Grand Ballroom of the Muehlebach Hotel.

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College from alleged price fixing and boycott agreements to keep nonmembers out of the medical laboratory testing industry.

Dr. Benoit pointed out there was a feeling that this decision of the Justice Department may have far-reaching implications in the practice of medicine and in the activities of other medical organizations. After further discussion, it was suggested that this problem be referred to the Medical-Legal Committee to study. Legal Counsel also was asked to study this matter since it may relate to the MSMA and report to the next meeting of the Council.—**Referred to Miscellaneous Affairs Committee.]**

REPORT OF MEDICAL-LEGAL COMMITTEE

■ Dr. Yancey, Chairman of the Medical-Legal Committee, reported that he had attended a meeting of Trial Lawyers at Tan-Tar-A which was very enlightening.

Dr. Yancey reported that the Medical-Legal Committee met in Jefferson City on August 10 to discuss, study and plan a course of action on two resolutions adopted by the MSMA House of Delegates and referred to the Committee by the Council. The resolutions deal with professional liability insurance and pretrial screening panels for malpractice suits. He stated that the general plan of all screening panels is very similar, with the exception of New Jersey which operates by rule of the Supreme Court. They also have a committee composed of two doctors, two lawyers and a retired judge. These various plans seem to work well in their areas.

Some information was provided on new types of plans developed by the states of Utah and Florida. In Missouri, the Committee feels we are making some progress, but plans to devote more study to this matter before recommending a type of plan that may be suitable to Missouri. It was stated that the Florida type plan of insurance, which is sponsored by the medical association, seems to be working well. The cases are all reviewed carefully both from the medical and legal viewpoint and more than 50% of the Medical Association members are members of this plan. One of the features of the plan is the filing of a counter-suit against the plaintiff if the case is won. That seems to be a deterent to the filing of malpractice claims.

Dr. Yancey stated that the Committee plans a meeting soon with insurance carriers. He stated the insurance carriers, as a whole, do not favor a screening method and do not favor group insurance. The Committee wants to determine the pros and cons of a group policy. He stated that the Florida group premiums are less than bureau rates for the state, but their premiums are much higher than in Missouri.

It was suggested that Mr. Cooper maintain contact with the Florida Medical Association and obtain information on the administration and operation of the plan.

After considerable discussion, on motion of Dr. Kerr, duly seconded, it was agreed that the report of the Medical-Legal Committee be accepted and that the Committee be directed to continue its study of possible screening panel systems.—**Referred to Miscellaneous Affairs Committee.]**

TRAINING PROGRAMS FOR D.O.'S

■ Dr. William Mayer, Dean of the University of Missouri School of Medicine stated there are five specialty boards which will not accept qualified D.O.'s for board certification. He said the University is now receiving applications from D.O.'s for residency training. He requested the position of MSMA on this matter.

After discussion, on motion of Dr. Matthews, duly seconded, it was agreed that the Council approve the acceptance by the teaching programs within the state qualified osteopathic residency applicants in the specialty areas which have approved Board certification for qualified osteopaths.—**Referred to Constitution and By-Laws Committee.]**

LETTER REGARDING MEDICARE

■ Dr. Mayer was asked to give an explanation regarding Medicare Intermediary Letter # 372. Dr. Mayer stated that there has been increasing concern relative to both Medicare and Medicaid payments for physician's services within teaching hospitals. He said the Social Security Administration's Intermediary Letter # 372 sets forth a very complicated method by which Part B payments can be made for services of physicians in a teaching institution. He indicated this has caused quite a furor throughout a number of teaching hospitals. He stated that the University of Missouri probably will be able to live with it and will make an attempt to define these reimbursement regulations under Part B to individual doctors and individual patients.

Dr. Miller stated that if Intermediary Letter # 372 is carried out, it would destroy the present policy now in effect in determining the reasonable charge payment.

The Chairman expressed appreciation to Dr. Mayer for his report. No action was requested, as this report was for the information of the Council.—**Referred to Resolutions Committee.]**

1970 ANNUAL SESSION PROGRAM

■ Mr. McIntyre reported that the program for the MSMA 1970 Annual Meeting is developing satisfactorily. He stated that a large part of this program is being developed by a number of specialty groups and organizations and committees of the State Medical Association. Mr. McIntyre said that Dr. Yore, Chairman of the Program Committee, will give a more complete report to the Council in December.—**Referred to Medical Education Committee.]**

LIAISON WITH OSTEOPATHS

■ Dr. Miller requested discussion on having a liaison committee on MSMA meet with a similar committee of the Missouri Osteopathic Association to consider mutual problems. He said that it was his understanding that the Osteopathic Association favors such a meeting. Dr. Matthews suggested that such a Liaison Committee be held to a small group with a like number from the Osteopathic Association. It was suggested that the Executive Committee of the Council meet with a like committee of the Osteopathic Association, possibly on Friday evening, December 12. A report can then be made at the Council meeting to be held on December 13-14. The staff was directed to contact the osteopathic group to determine if this is agreeable.—**Referred to Constitution and By-Laws Committee.]**

PEER REVIEW

■ The Chairman stated that before discussion of Peer Review, which is of primary concern to all the physicians, he would appreciate some clarification of the Missouri Medicaid Program and requested Mr. McIntyre to review the situation from the beginning.

Mr. McIntyre explained that the MSMA Medical Economics Contract Committee was set up by the House of Delegates at the recommendation of the Council in order to deal with third party carriers. This Committee assisted the Missouri Division of Welfare in setting up the mechanism for the payment of physicians' services under Medicaid on a usual, customary and reasonable fee basis. It was assumed that the Division of Welfare would have some physicians' billings on which the Division might request a review and recommendation by a Medical Review Committee.

In view of this, the specialty groups of the state, represented on the Medical Economics Contract Committee, appointed review committees. The names of physicians on these committees were given to the Division of Welfare, so that the Division might refer cases that seemingly needed review by specialty peers. There has been some feeling that the review committees have not been used as much as they might be for the benefit of the entire program. He said that, in addition, it seems that some physicians may have a misunderstanding of the Medicaid payment method in Missouri.

Mr. McIntyre reported that a Subcommittee of the Medical Economics Contract Committee is to meet soon with representatives of the Missouri Division of Welfare to discuss some of these problems. The Subcommittee then will report its findings and recommendations to the Medical Economics Contract Committee. Following this, a report to the Council on the entire situation will be given. Following Mr. McIntyre's remarks, there was considerable discussion of the overall problem of peer review. The Chairman terminated the discussion by pointing out that the Council should wait for a full report from the Medical Economics Contract Committee before taking further action on this matter.—**Referred to Resolutions Committee.]**

LONG-RANGE PLANNING

Dr. Miller discussed greater use of the Interspecialty Committee in conformity with the plan which was submitted to the Council last year by the Long-Range Planning Committee. He directed that the plan again be submitted to the Interspecialty Committee for further consideration and recommendations to the Council.

Dr. Miller, on behalf of the Council, thanked Dr. and Mrs. Joseph Fisher for their gracious hospitality extended to the Council and others on Friday and Saturday.

It was decided that the next Council meeting will be held at the new Downtown Holiday Inn, Jefferson City, December 13-14, 1969. The Chairman suggested inviting the Deans of the Missouri Medical Schools to Council Meetings. He pointed out that this would be of mutual benefit. After discussion, on motion of Dr. Hansbrough, duly seconded, it was agreed that an invitation be extended to the deans of the three medical schools and to Dr. Noback, the Associate Dean of the University of Missouri School of Medicine at Kansas City.

On motion, the meeting adjourned at 12:00 noon.

Meeting of Dec. 13-14, 1969

The MSMA Council met at the Downtown Holiday Inn in Jefferson City on Dec. 13-14, 1969 with Chairman Gerald L. Miller, M.D., Kansas City, presiding. Those in attendance were Drs. Miller; John N. Martin, St. Joseph; Lysle M. Bach, Hannibal; Walter T. Gunn, St. Louis; Robert A. Mayer, Clayton; James C. Cope, Columbia; William D. Bradshaw, Clinton; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; Eugene T. Hansbrough, Poplar Bluff; Doyle C. McCraw, Bolivar; Joseph L. Fisher, St. Joseph; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; David N. Kerr, St. Louis; Stanley S. Peterson, Springfield; J. Loren Washburn, Versailles; Hector W. Benoit, Jr., Kansas City; A. W. Neilson, St. Louis; William D. Mayer and William C. Allen, Columbia; William B. See, Columbia; Charles Gulick, St. Louis; Richard W. Yore and Herbert C. Wiegand, St. Louis; Florence E. MacInnis, Kansas City; Flavius Pernoud, St. Louis; Earl G. Padfield, Jr., Kansas City; Richardson K. Noback, Kansas City; Robert Felix, St. Louis; William H. Danforth, St. Louis; Mrs. James Reid, President, Woman's Auxiliary, Marshall; and Messrs. John W. Noble, Kennett; Edgar Mothershead, Clayton; Gary Schnedler, Springfield; Allen D. Smith, Kansas City; T. R. O'Brien, St. Louis; Tom P. Fox, Robert Carroll, Royal O. Cooper and Ray McIntyre, Jefferson City.

REPORT OF THE EXECUTIVE SECRETARY

Mr. McIntyre reported that letters of thanks had been received from Mrs. J. W. Thompson and Mrs. Ben Bull for the flowers sent at the time of the deaths of Drs. Thompson and Bull.

He reported that a request was received from the Conference of Presidents to continue MSMA mmbership in this organization. On motion of Dr. McCraw, duly seconded, it was agreed that this membership be continued.

Mr. McIntyre reported that a request was received from the State Chamber of Commerce to continue MSMA membership in that organization. On motion, duly seconded, this was approved.

Mr. McIntyre referred to a letter received from the Missouri Society of Internal Medicine regarding a resolution passed by the Council of the Missouri Society of Internal Medicine and referred to the MSMA Council. The resolution is as follows:

> *Resolved,* That a Resident of the State of Missouri, after his 64th year of age, be required to pass a driver's test in order to have his driver's license renewed prior to the regular renewal date.

Discussion followed regarding whether or not an MSMA resolution of a similar nature should be presented to the 1970 MSMA House of Delegates. After further discussion, it was agreed to refer this resolution to the Committee on Environmental Health.

It was announced that the AMA Committee on Medicine and Religion will hold a regional conference on March 7, 1970 and that a representative of the MSMA Committee on Medicine and Religion be requested to attend. On motion, duly seconded, it was agreed to request Dr. Troy Morgan to attend this meeting with his expenses to be paid by the Association.

It was suggested that the Council redefine its policy regarding the use of the Association's addressograph plates for outside mailings. It was pointed out that an increasing number of requests for such mailing assistance are being received. On motion of Dr. Cope, duly seconded, it was agreed that the addressograph plates of the Association be used only for the business of the Association and in connection with the purposes of the Association.

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Mr. McIntyre reported that the Association sent letters to Senators Eagleton and Symington requesting their vote to reject a Senate Finance Committee proposal to impose special restrictions on professional corporations. The Senate has rejected the proposal. The Chairman requested approval of the Council minutes of Sept. 6-7, 1969. On motion of Dr. Gunn, duly seconded, the minutes were approved as published.

REPORT OF THE TREASURER

Dr. Franklin presented a detailed account of the Treasurer's Report as of Nov. 30, 1969, copies of which were distributed to the Council. After discussion, on motion of Dr. McCraw, duly seconded, the Treasurer's Report was approved.

Dr. Franklin requested an Executive Session of the Council to consider the 1970 proposed budget to be presented by the Budget Committee. Following consideration of the Budget Committee's recommendations and on motion of Dr. McCraw, duly seconded, the following budget was approved for 1970:

Salaries	$109,600.00
Furniture and Fixtures	1,000.00
Office Rent and Lights	7,680.00
General Expense	2,600.00
Office Supplies	3,500.00
MSMF Assessment	35,820.00
Postage	3,500.00
MSMF Expenses	2,500.00
Journal Expenses	38,500.00
Equipment, Rentals, etc.	2,200.00
Telephone and Telegraph	5,300.00
Pension Expenses	25,427.00
Permanent Investment Fund Allocation	4,000.00
Legal and Professional	7,500.00
Taxes and Payroll	3,775.00
Travel Expenses	6,000.00
Meetings and Committee Expense	28,500.00
Annual Session	17,000.00
TOTAL	$304,402.00

Chairman Miller introduced Mrs. Pat Reid, President of the Woman's Auxiliary and welcomed her to the meeting. He stated, in response to her letter, that the Council had voted unanimously to accept any refund of the Association's fund grant after the Auxiliary's Annual Session.

REPORT OF INTERSPECIALTY COMMITTEE

Dr. Gulick, Chairman of the MSMA Interspecialty Committee, reviewed the minutes of a meeting held in Jefferson City on Nov. 16, 1969, stating it was the first full meeting of the Interspecialty Committee since the Annual Session in March. He said he had received several committee reports, which were referred to the committee for information only, and the report of the Ad Hoc Committee to Study a New Level of Medical Practitioner, which was referred to the Interspecialty Committee for study and recommendation.

Dr. Gulick stated that the Committee was very interested in Dr. Edwards' Ad Hoc Committee report and felt that this is an area that should be developed, but that first the practitioner we are proposing needs to be defined in terms of what he will do and the training required. It was suggested that each member of the Committee should meet with his specific group and discuss this point before the Interspecialty Committee meets again. It was suggested that a type of questionnaire might be developed so that each specialty could be asked more specific questions, rather than just being asked for their opinions. Dr. Gulick stated that the Committee definitely needed a better understanding of the person to be trained, the training requirements and the legal implications. He reported that the Committee is in favor of further study of this report.

■ Dr. Gulick reported that the Interspecialty Committee has studied the proposed reorganization of the committee structure of MSMA as recommended by the special Long-Range Planning Committee, which was unanimously approved by the Interspecialty Committee.—**Referred to Constitution and By-Laws Committee.]**

Dr. Gulick stated he had received a request that a representative from the Joint Missouri Council of the American Psychiatric Association represent psychiatry on the Interspecialty Committee instead of a representative from the Missouri Academy of Psychiatry. It was pointed out that the Eastern and Western Missouri Divisions of the APA have formed a statewide council which will adequately represent the psychiatrists in Missouri on the Interspecialty Committee.

Discussion followed regarding the new level of practitioner and what types of programs the universities have in regard to this problem. Dean Mayer of the University of Missouri described the work of their Allied Health Training Programs. He said they have approximately 200 students in these training programs and the faculty is now taking a good look at the existing programs with the intent of better training these students to fit needed allied health care activities.

Dr. Felix of St. Louis University reported that their Allied Health program is in connection with the School of Nursing.

Following discussion, Chairman Miller charged the Interspecialty Committee to further study this new level of practitioner proposal and present more specific recommendations to the Council for the development of such a program.

■ On motion of Dr. Kerr, duly seconded, it was recommended that, in view of the Long-Range Planning Committee proposal which was approved, this portion of the Interspecialty Committee report to be referred to the Constitution and By-Laws Committee to study and to make a report to be submitted to the House of Delegates for a change in the Constitution and By-Laws at the next annual session.—**Referred to Constitution and By-Laws Committee.]**

On motion, duly seconded, the report of the Interspecialty Committee was approved.

COUNTY MEDICAL SOCIETY OFFICER'S CONFERENCE

Dr. Walter Gunn, Chairman of the Public Service Committee, gave a brief run-down on the program developed for the Annual County Societies Officer's Conference which will be held at the Ramada Inn in Jefferson City on Jan. 31-Feb. 1, 1970. He urged the Councilors and Officers to make every effort to attend and also to urge the Society officers in their districts to attend this most interesting and educational program. He pointed out that all members of the Associations are invited.

REPORT OF THE OSTEOPATHIC LIAISON COMMITTEE

■ Dr. McCraw stated that the Executive Committee of MSMA had met with a similar committee of the Osteopathic Association on Friday evening, Dec. 12, 1969. He said it was the first official meeting of this group and some progress was made in certain areas. They discussed the need for updating the Medical Practice Act and suggested that a joint committee, including the Board of Healing Arts, be named to study this matter. They also discussed the need for some requirement to stimulate all physicians to participate in continuing medical education. The group reviewed certain health bills considered in the 1969 Missouri General Assembly and discussed bills which may be introduced in the 1971 session. It was agreed to have a small committee appointed representing the MSMA, the Missouri Association of Osteopathic Physicians and Surgeons and the State Board of Healing Arts to further consider mutual problems.

A general discussion was held relating to osteopathic graduates taking part in AMA-approved intern and residency training programs as well as Doctors of Osteopathy becoming members of medical societies.—**Referred to Constitution and By-Laws Committee.]**

COUNCILOR DISTRICT REPORTS

Dr. Martin of the First District reported that Buchanan County Medical Society held an interesting joint meeting with the lawyers of the area recently.

■ Dr. Gunn of the Third District urged the Council to consider adequate financial support for the MSMA Environmental Health Committee of which Dr. Neilson is Chairman. He also reported that Dr. Neilson has been appointed as a member of the AMA Council on Environmental and Public Health.—**Referred to Medical Education Committee.]**

Dr. Mayer, Fourth District, reported that he had attended a meeting of the Lincoln-St. Charles County Medical Society and the Society had requested that its name be changed from Lincoln-St. Charles to St. Charles-Lincoln County Medical Society. On motion of Dr. Mayer, duly seconded, it was agreed that this change be made. Dr. Mayer also reported that a $500 donation had been sent to the Missouri State Medical Foundation from that Society recently. He also reported that St. Louis County Medical Society had accepted joint billing.

Dr. Cope, Fifth District, reported that the bond issue for additional construction at the Boone County Hospital had been defeated for the third time and that it was practically impossible to get a two-thirds vote.

Dr. Bradshaw, Sixth District, reported on the opening of a new hospital in Osceola and said that Henry County has started construction on a new hospital. He reported that the Sixth Councilor District will hold a District meeting in Warrensburg on January 14. The guest speaker will be Dr. E. Grey Dimond of Kansas City.

Dr. Miller, Seventh District, reported that the Jackson County Medical Society Annual President's dinner will be held on Jan. 29, 1970, with the president of SAMA as the speaker. He also reported that the Four County Area Medical Council had sent telegrams to Senators Symington and Eagleton in regard to Senate consideration of a tax proposal for professional corporations.

President-Elect Gerald L. Miller congratulates Dr. R. Allen Chandler of Kansas City who was named Councilor of the Seventh District to succeed Dr. Miller. Dr. Miller served as Chairman of the Council for 1969-1970.

■ Dr. McAlhany, Eighth District, reported that a brochure promoting Springfield had been prepared by Greene County Medical Society for distribution to medical schools and others. He distributed copies of the brochure. He stated that Comprehensive Planning is getting under way in Greene County and three physicians have been appointed to the Governing Board to help guide the program. He reported that OEO has three Health Centers in Springfield and a workshop meeting is being planned to discuss this problem. He reported on the annual Orientation Program of Greene County for new members which was held last month and was very well received. He urged other Societies to have similar meetings to help new members in their practice and acquaint them with the functions of their medical societies.

Dr. Stricker, Ninth District, reported that at the last meeting of their local medical society Dr. Sherwood Baker and his group gave an interesting talk on Medical Preceptorships.

Dr. Hansbrough, Tenth District, reported that the October Southeast Missouri Cancer Conference had a good attendance, the Regional Medical Program had a meeting in Sikeston on Dec. 4, 1969 and Comprehensive Health Planning wants to hold Regional Meetings. He also reported that he had attended the Kentucky State Medical Association meeting and gave an interesting report on several phases of their program.—**Referred to Miscellaneous Affairs Committee.]**

REPORT OF THE PRESIDENT

Dr. McCraw stated that he had visited 14 county medical societies since the last Council meeting, and had enjoyed his visits in various Districts over the state and still has a few more visits to make.

REPORT OF THE PRESIDENT-ELECT

■ Dr. Fisher reported that he had attended a meeting in Indianapolis relating to Voluntary Health Organiza-

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tions. He suggested that MSMA give thought to better liaison with such groups and give guidance where needed. He stated that a similar meeting of this type in Missouri might be quite valuable in promoting liaison between these Health Organizations which influence, to some extent, ancillary services of medicine. Dr. Kerr mentioned that the AMA has had a Council on National Voluntary Health Agencies and that Dr. Wendell Scott of St. Louis is a member of this Council which sponsored the Indianapolis Conference.—**Referred to Constitution and By-Laws Committee.]**

REPORT OF THE MATERNAL WELFARE COMMITTEE

■ Dr. See, Chairman of the MSMA Maternal Welfare Committee, reported on the committee's program for the 1970 Annual Session on Friday, April 3, at 11 AM, with Dr. Keith Russell speaking on "Endotoxic Shock." Dr. Russell also will be a guest at the Maternal Welfare Luncheon that same day and will participate in the discussion of maternal death studies.

Dr. See reported that the Committee met on Nov. 2, 1969, with eight members and four guest present. The Committee recommended a change in the Missouri Abortion Law which was approved by a vote of seven to one. The recommendation is that the present law be repealed and changed to read: "An Abortion should be considered illegal if performed by anyone other than a licensed physician in a place other than a licensed hospital."

The Committee also voted to recommend that legislation be sponsored to provide for the immunity of Maternal Mortality Study Committees, Tissue Committees and Medical Audit Committees from professional liability suits or other litigation.

Dr. See reported that the deletion of the question, "Was this patient pregnant or has she been pregnant in the last 90 days," from the current Missouri Death Certificate has made the reporting of maternal deaths incomplete and misleading. He stated that the Bureau of Vital Statistics has promised to include this question on the death certificate after Jan. 1, 1970.

The Committee recommends that the MSMA endorse a community-wide program of mass rubella vaccination for children of age one to puberty.

After discussion, the Report of the Maternal Welfare Committee was accepted on motion of Dr. McAlhany, duly seconded and then referred to the Legislative Matters Committee.—**Referred to Miscellaneous Affairs Committee.]**

PROPOSED CHANGES IN DISABILITY INCOME INSURANCE PROGRAM FOR MEMBERS

Mr. O'Brien stated, that some 25 years ago, the Association had endorsed a program of disability insurance for its members on a voluntary basis, administered by the Eggert-Carroll-Schroeder Agency in St. Louis and the Altman-Singleton Agency of Kansas City. This program has been in effect ever since. He introduced Mr. Art Humphrey of the Eggert-Carroll-Schroeder Agency who gave a brief explanation of the changes proposed, which would offer additional advantages to younger members while maintaining current advantages for older members. He also explained a proposed guaranteed renewal program. He mentioned that a letter would be sent to the membership explaining these changes in detail, if the Council approved.

After further discussion, on motion of Dr. Kerr, duly seconded, the proposed changes were approved.

Mr. Mothershead announced that St. Louis County Medical Society was sponsoring another tour, this one to Africa, which is scheduled to leave on Oct. 13, 1970. He stated that further information would be forthcoming.

REPORT OF THE PRESIDENT OF THE WOMAN'S AUXILIARY TO THE MSMA

Mrs. Pat Reid, President of the Woman's Auxiliary, stated that it was a real pleasure for her to have the opportunity to attend the Council meeting and to meet the Council and Officers. She said it had been enlightening and enjoyable to work with Dr. McCraw, the Advisory Council and Mr. McIntyre. She stated the real reason for the Auxiliary is to be of help to all the doctors. She said this year the Auxiliary has stressed Health Manpower, Health Careers in Allied Fields, etc. She emphasized that if the Auxiliary can be of help to the Association at any time, to please call on them.

AMA DELEGATE'S REPORT

■ Dr. Washburn presented the following report of the highlights of the Clinical Session of the AMA which was held in Denver on Nov. 30-Dec. 4, 1969.

"The Missouri State Medical Association was well represented officially at the American Medical Association's meeting in Denver earlier this month with all four of our state delegates and four alternates in attendance along with our Association's President, President-Elect, Immediate Past-President and Council Chairman, as well as a number of members.

"Delegate Arthur W. Neilson was Chief Teller for the House of Delegates and Dr. Stanley Peterson was a member of Reference Committee G. Dr. Wendell G. Scott of St. Louis again served as the Delegate from the AMA's Section on Radiology.

"Our delegation introduced one resolution, No. 42, concerning Social Security Regulations Relative to Part B Payments of Medicare in Teaching Institutions. The Resolution was discussed before Reference Committee B. which suggested the following substitute *Resolve:*

> *Resolved,* That the Board of Trustees and the Social Security Administration immediately take measures to effect clarification of the regulations spelled out in SSA Letter # 372 to Part B Intermediaries to the end that Medicare payments for bona fide medical services rendered by or under the supervision of physicians in teaching institutions will be resumed.

"Both the resolution and the substitute *Resolve* were referred to the AMA Board of Trustees by the House of Delegates.

"On Saturday, before the opening of the AMA meeting, a number of those in attendance from Missouri attended an all-day session on Peer Review.

"During the meeting, organized medicine was warned that effective peer review mechanism may be the last bulwark against encroachment of its obligation to set standards for medical practice and quality of care.

"The program featured a number of speakers who have been involved in peer review programs along with two panels—one included members of a hospital utilization and review committee, the other included members of a county medical society's peer review committee.

"AMA President Dr. Gerald Dorman opened the Sunday session of the House of Delegates with a challenge that the organization must establish or see to the establishment of a workable system of patient care for all the people of the nation and to strengthen the AMA so it is relevant to all physicians.

"He said that the AMA needs to attract physicians who are educators, researchers, administrators and those in federal service as well as those in private practice. He also urged a program to attract future physicians to the AMA.

"Dr. Dorman said that the AMA must become 'patient-oriented' and prove to the public through visible action that we are patient-oriented.—**Referred to Resolutions Committee.]**

■ "The following are among the more important actions of the House of Delegates taken in session on Sunday afternoon, all day Tuesday and Wednesday morning:

"The House voted down a resolution urging revision of state laws so abortion would be available on demand. Instead, the House voted to reaffirm the present AMA policy statement on therapeutic abortion.

"The House referred to the Board of Trustees a recommendation that the Berry Plan for physicians to serve in the military service be changed to allow physicians to serve in areas where physicians are in short supply.

"The House voted to establish a committee on private practice of nine members to encourage and promote the private practice of medicine and to develop new methods to promote the private practice of medicine throughout medical schools, graduate and postgraduate training.

"The House adopted a report of the Committee on Health Care for the Poor which calls for (1) increased financial support of health programs for the poor, (2) provisions of methods to attract and retain physicians and allied health professionals in areas of need, (3) development of educational materials relevant to the cultural backgrounds of the poor and minority groups, (4) assurance of adequate nutrition, (5) elimination of quackery and (6) increased participation of minority-group physicians in AMA activities.—**Referred to Miscellaneous Affairs Committee.]**

■ "The House urged the Council on Medical Education and specialty boards to move forward with the acceptance of qualified osteopathic physicians into their training programs and specialty board examinations.—**Referred to Constitution and By-Laws Committee.]**

■ "The House called marihuana a dangerous drug, pointing out that sale and possession should not be legalized. Additional research was encouraged and it was recommended that offenders should be handled on individual basis, including treatment and rehabilitation.

"The House voted to discontinue as soon as possible the AMA's Institute for Biomedical Research because 'it is impractical for AMA to continue to meet increasing financial burden for its support.'

"The House voiced concern about the fragmentation of medicine through rapidly increasing numbers of Washington offices established by specialty societies and urged AMA to seek to coordinate efforts of all segments of profession in their relation with federal government.

"The House adopted a resolution strongly opposing as discriminatory a Senate Finance Committee amendment which militates against professional corporations.

"The House approved the idea of the AMA using its influence to produce legislation which would provide educational monies for new medical schools and to assist present medical schools.—**Referred to Medical Education Committee.]**

■ "In the malpractice field, the House called for state and county medical societies to explore with counterpart hospital associations the development of workshops designed to prevent medical accidents in hospitals, called attention to a recommendation of a Board of Trustees report concerning sponsorship of professional liability insurance programs by medical societies on a state or regional basis and voted to request that the board of Trustees continue the urgent priority in the search for the solutions to the crisis of professional liability and liability insurance. The House also voted to ask each State Association to supply to the AMA Headquarters copies of proposed legislation, proposed programs and other pertinent data so that such information can be disseminated.—**Referred to Miscellaneous Affairs Committee.]**

"The House also approved a resolution calling for the promotion of environmental health. (Copies of this resolution were given to Council members present.)

■ "Considerable discussion during the AMA meeting centered on a report of a Committee on Long Range Planning and Development which is commonly referred to as the Himler report, named after the committee's chairman, as well as a minority report on the same subject by Dr. John Budd.

"The House voted to establish a permanent Committee on Long Range Planning and Development but, in the interim, to establish an Ad Hoc Committee on Long Range Planning and Development to include one member of the Board of Trustees, five members of the House, two AMA members at large and a member of SAMA. This Ad Hoc committee is to receive both the Himler Report and the minority report, as well as all other reviews and correspondence on the subject, and is to study and make recommendations concerning the structure of and the charge to the permanent Long Range Planning Committee. These recommendations are to be reported to the House next June.

"The House also voted to transmit both the Himler report and the minority report to component state medical societies for study and possible resolutions and recommendations to be made next June.

"The copies of the Himler Report and the minority report as well as the recommendations of the Reference Committee, are available on a limited basis for your study."

Dr. Miller proposed that the Himler Report be submitted to a committee composed of the AMA Delegates of MSMA (to be assisted by an Alternate Delegate if the Delegate could not be present), to assist in studying the contents of the Himler Report and the minority report and have it brought back in some detail to the Council so it can be studied wisely. It was suggested that a member of the Council also be included on this committee and that the Council make recommendations to the MSMA House of Delegates so that the Association can make a decision at the time of the annual session and make a firm statement through the House of Delegates regarding the feeling of Missouri physicians about all or many of the 57 items in this report. Dr. Miller then added Drs. Gunn and Bradshaw to the above committee. He voiced his approval of the recommendations and proposed that the Committee meet and report to the Council at its next meeting. Dr.

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Benoit was appointed chairman of this special committee.

On motion, duly seconded and passed, Dr. Washburn's AMA Report was accepted and approval was given for the appointment and charge of the special committee relating to the Himler Report.

Dr. Washburn suggested that since all District Councilors have a copy of the material on the Himler Report, they read it and make their comments to the respective AMA Delegates.—**Referred to Reference Committee "H."]**

POSSIBLE AMA SESSION IN MISSOURI

The possibility of an AMA session being held in either St. Louis or Kansas City in 1975 or 1976 is under consideration. The Convention Bureaus in both cities are eager to get a meeting of the AMA, possibly an Interim Session. The AMA Annual Session might be too large. Mr. McIntyre reported that the AMA policy states that the State Medical Association, as well as the local society, invite the AMA by letter to hold its meeting in that particular place.

After discussion, on motion of Dr. Kerr, duly seconded, it was agreed that the Association extend an invitation to the AMA to hold its Clinical Session in St. Louis in 1975 or 1976 and that St. Louis Medical Society and St. Louis County Medical Society also be requested to extend an invitation.

REPORT OF THE MEDICAL-LEGAL COMMITTEE

■ Dr. Bach presented the report of the Medical-Legal Committee in the absence of the Chairman, Dr. Yancey. The Committee met on Dec. 7, 1969, in Columbia for the purpose of discussing evaluation panels for alleged malpractice cases and other items. However, a quorum was not present.

It was recommended to the Council that a group plan of professional liability insurance not be proposed by MSMA.

The Committee considered the possibility of countersuits brought by physicians if they are successful in their defense of a case and agreed it appears to have merit. The Committee, therefore, recommends that MSMA adopt a policy encouraging countersuits.

The Committee also recommends to the Council that similar to the California Bill # 259 be drafted and introduced. This legislation authorizes the defendant in malpractice cases to require the plaintiff to post bond as security for cost of defense which may be awarded against plaintiff. It requires plaintiff to pay defendant's court costs upon dismissal of the action or on award of judgment to the defendant.

The Committee also recommends that in cooperation with the Hospital Association, joint workshops on the prevention of medical accidents in hospitals be held as advocated by AMA House of Delegates in Denver. They stated that we believe these workshops to be worthwhile for both groups and discussions should be encouraged at all levels of patient care.

The Committee also recommends the publication of malpractice and professional liability articles in Missouri Medicine. The Committee and staff will work to develop these articles for publication.

After discussion, the Council accepted the report of the Medical-Legal Committee and referred that portion of the report regarding proposed legislation to the Legislative Matters Committee.—**Referred to Miscellaneous Affairs Committee.]**

REPORT OF THE COMMITTEE ON ENVIRONMENTAL HEALTH

■ Dr. Neilson presented a progress report on the activities of the Committee on Environmental Health. After polling the MSMA Committee and meeting with the St. Louis Medical Society Environmental Health Committee, Dr. Neilson forwarded to the Governor a statement of need and purpose and a plan to set up an "Action Committee" to deal with the changing environmental problems. The Governor held a hearing with representatives of various organizations and, early in November, Dr. Neilson was contacted by the Governor's Office and advised that a financial grant had been secured. Dr. Neilson indicated that the Governor plans to set up an Urban Affairs Conference sometime in early 1970 and he was asked to head the Pollution-Environmental Study portion of this meeting. He stated that the Governor seemed impressed by the activity of Missouri physicians with environmental health problems and readily accepted the offer for strong backing and cooperation of the physicians of the MSMA.

Dr. Neilson indicated that the Committee has been approached by Frank Barton regarding an environmental health meeting to be held next fall with representatives from 50 state medical associations.

He expressed appreciation to the Council and Officers for their support and recommendation for his recent appointment to the AMA Council on Environmental and Public Health.

He stated that he would like to call attention to the lack of a specific budget for his MSMA Committee activities. He also stated that he plans to attend a five-state program in Scottsdale, Arizona, on Jan. 9-10, 1970 sponsored by the AMA Council on Environmental and Public Health.

Dr. Neilson indicated that his Committee, together with MSMA Legal Counsel, conferred regarding the Missouri Driver's License form to try to reduce it to one page and also to reduce possible physician liability as the result of signing any such forms. He asked the Council for approval of the proposed revised form. Motion was made and seconded and it was voted to approve the form. The proposed new form will be referred to the Missouri Department of Revenue Driver's License Section.

Dr. Neilson further reported that the MSMA Committee on Environmental Health held a luncheon meeting with the St. Louis Medical Society Environmental Health Committee on Nov. 24, 1969, at the request of the Air Conservation Commission of the State of Missouri. Two basic problems were discussed: (1) The correlation of health effects and air pollution on human beings with air quality control data and (2) the public health and air or water pollution resultants of improper disposal of waste material from hospitals.

Dr. Neilson stated that he has been appointed to the Governor's Environmental Quality and Health Task Force, which works out of the Governor's Advisory Council for Comprehensive Health Planning.

He further stated that Michigan's Resolution # 55 on promoting environmental health was approved by the AMA House of Delegates at the Clinical Session.

Motion was made and seconded that the Council accept this report. The motion carried.

Discussion followed regarding the budget request by the Committee on Environmental Health. Dr. Neilson indicated that he would like to draw up for the Council a firm budget for the Committee and present it at the next Council meeting.—**Referred to Medical Education Committee.]**

(Continued on page 462)

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Missouri Medicine

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Remarks of

Doyle C. McCraw, M.D., President

Doyle C. McCraw, M.D.

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Mr. Speaker, Officers, Members of the House of Delegates and Guests:

I have the honor of being the first President to address you in the decade of the 70's. It has been a great privilege to serve you and, again, I want to thank you. This should be an appropriate time to look into my crystal ball and forecast the future.

There is one thing of which we can be sure without a crystal ball. There will be change.

Most of us are not built to accept, much less anticipate, change easily. Therefore, changes are frequently upon us before we recognize them. The pace of the world we live in continues to accelerate. No organization, no profession can afford to remain static or merely preserve the status quo.

Change, managed properly, offers opportunity. Changes ignored frequently mean failure.

We must respond to change with improved efficiency and service. We must make long range plans, but we must not overlook the job at hand.

The Council, the Long Range Planning Committee, the Interspecialty Committee and the Constitution and By-Laws Committee have made progress toward reorganization of the State Association which we believe will make the administration of our organization more efficient and serve the members and our patients more effectively. I recommend that you adopt these changes in the By-Laws at this meeting.

A major force in our environment is the ever-increasing demand for our services. We must respond to this on several fronts:

We must strive for increased efficiency and improved service. This involves training various assistants to help us, and we must be willing to experiment with the use of these aids. It can be a valuable help, but it will not solve the doctor shortage.

We must train more doctors. It is estimated that twice as many M.D.'s will graduate in this decade as in the 60's. This is due to some 20 new medical schools and increased enrollment at existing schools. Although this is a great achievement, it is not enough.

Our greatest need in Missouri is a new medical school in Kansas City. If the school is funded by the General Assembly, the first class will start in 1971. Each of you should talk to your state legislators and convince them that the whole state of Missouri will suffer if this school is not funded. A state with a budget of $1.4 billion must find the money for this school and state support for existing schools.

The Olson report to the Missouri Commission on Higher Education pointed out that only 27% of the living graduates of our three Missouri medical schools practice in Missouri. About 50% of the Missouri residents graduating from the University of Missouri are practicing in Missouri. It appears that the best method for attracting doctors is (1) to get them to intern in the state, (2) to take their residency training in the state and (3) to marry Missouri girls who want to live in Missouri.

We now have to graduate two doctors to get one in Missouri. We must all work on this and increase this number. We must try to attract our out-of-state doctors who are training in Missouri.

Our critics would radically change our system of delivery of medical care. They would have compulsory, prepaid medical insurance, preferably with doctors as civil servants on salary. It is unrealistic to assume that a doctor who is now working 80 or more hours a week would be more effective working 40 hours a week for the federal government.

Former Secretary of Health, Education and Welfare, John Gardner, said that if doctors would increase their productivity by 4%, it would be the equivalent to one whole year's output of our medical schools.

I would like to remind him that if the 236,000 doctors in private practice work a 40-hour week, this will require the equivalent of the output of 50 more medical schools. This is many years in the future.

We simply do not have enough doctors to cut our hours to 50 or 60 per week.

May I briefly thank you for your support of the Political Action Program the past year. It is by far the best we have done.

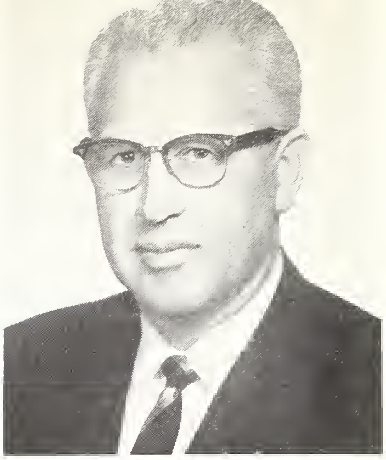
Also, let me commend you for your support of the Missouri State Medical Foundation which was founded ten years ago. This year, our assets exceed $300,000 which consists principally of loans to medical students. Due to the money shortage and high interest rates, there is a great demand for the money. Please remember the Foundation with gifts and in your wills and memorials. This is a fine way to show your appreciation to a colleague who has rendered a professional service to you or your family. Make a donation to the Foundation in his name.

Time does not permit me to thank everyone who has helped me during the past year. If you took this help away, there would be little left.

I want to thank Pat Reid and the Auxiliary and Dave Kerr, my predecessor, who have been so helpful, and, also, Gerry Miller and all members of the Council. I have had an opportunity to learn what goes on in the MSMA State Headquarters, and I can tell you that we have a very dedicated and loyal staff.

I wish I had time to list each one individually and describe his or her duties.

As to my successor, Dr. Joe Fisher—no man in my memory has assumed the presidency with such a background of experience in organized medicine. He served as Delegate for many years, Vice-Speaker for three years, Speaker for three years, Member of the Council for ten years and, finally, Chairman. He knows his job and he has the character and ability to make an outstanding President. I wish him well.


Joseph L. Fisher, M.D.

Remarks of

Joseph L. Fisher, M.D., President-Elect

Mr. Speaker, members of the House of Delegates and Guests:

As many dedicated, able and devoted presidents have stood before this august body, I stand before you today acutely and humbly aware of my many inadequacies as a single force in guiding or shaping the destinies of this great organization. Your retiring President, Doyle C. McCraw, has done an excellent job during these turbulent times. I shall pay tribute to Doyle by calling upon him during the ensuing year for advice and counsel.

For those of you who have been involved in the labors of our Society, as well as those of you just becoming active participants, I would like to commend you upon the selection of your Councilors and officers. These energetic and conscientious men unselfishly spend many long and wearisome hours in your behalf and they carry the major burden of the operation of our Association. I shall constantly look to them for knowledgeable help and guidance.

In 1959, some of our politicians promised us the "soaring 60's." Now we are in the "exciting 70's." Crime, violence, poverty, ecology and medical care are the major issues. If we are to keep abreast of these fast-moving social changes and their relationship to medicine, each member of this organization must be current and knowledgeable, and there must be "feedback" from the grassroots to the Councilors and officers. Therefore, you see, we depend on you, the membership, to help keep us abreast or, better yet, "a little ahead" of some of our social do-gooders.

In 1967 at the AMA Communications Institute in Chicago, I had the pleasure of hearing Charles B. Shuman, President of the American Farm Bureau Federation. I would like to quote some parts of his speech. Mr. Shuman began by saying, "I wanted this opportunity to speak to the AMA because for 35 years in agriculture, I have been going through some experiences in trying to cope with the attempts to socialize agriculture that you could profit by in your similar struggle. Perhaps you could save 20 years of time, and that might be of interest to you.

"The nature of this struggle in Agriculture seems about the same as your struggle in the field of medicine and health care. It is the struggle between those who believe in the maximum freedom for individuals to choose how they will order their lives and their businesses on one hand, and those who believe in considerable control by government of individuals and their affairs. You can put it another way and say it's the struggle between socialism and capitalism. Winston Churchill once said, 'Capitalism is the unequal distribution of blessings; while socialism is the equal distribution of poverty.' I think they have named the poverty program right.

"I have said we have had some 35 years of experience in this struggle. It goes back to the Republican Administration of Herbert Hoover, when, in answer to a very legitimate complaint which farmers had, our government instituted the first intervention program in agriculture. It was an attempt to raise farm prices by buying up farm supplies and holding them off the market. It failed rather quickly, because they didn't provide enough money. But it was supplanted or replaced by another socialistic scheme, and that's been the history of the failure of government farm programs in agriculture.

"At first, we thought when a given program failed, we would go back to the market place. Never! The socialists are too smart for that. They know that the only way that the failures can be covered up is by coming along with another socialistic scheme. Each one goes a little

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further and a little further. One lesson we have learned—don't wait for these schemes to fall of their own weight. Don't wait for failures to take them down. Medicare will never go as a result of failure. It will continue to grow and grow as you wait for it to fail."

Continuing to quote Mr. Schuman—"I remember reading some of the testimony on the Medicare bill of a few years ago. The witness, a proponent, was asked why they were insisting on including everyone over 65 years under Medicare. Why wouldn't they accept the idea that those who had adequate income should pay their own medical costs. He was badgered considerably by a member of the hearing committee, and he finally told the truth. He said the reason they wanted to include all under Medicare, regardless of their ability to pay their medical bills was because they, meaning all over 65, would not spend their money wisely. This is the rationale. This is the heart of the whole thing. These folks who believe in socialized medicine, socialized agriculture, socialized power do not believe that 200 million people going into the marketplace with their earnings are intelligent or smart enough to know how to spend their money. That's what it's all about—management of people."

Mr. Shuman went on to point out several reasons why it is difficult to get rid of these socialized programs once they are instituted. Three of the reasons which he emphasized considerably were "public apathy," "a misinformed public" and the "leaches" who become attached and fight any movement to stop the program which is their life blood.

For years, the AMA in the national news media has reacted "after the fact" frequently to gross untruths. To draw a pretty picture on a clean piece of paper is much easier than trying to erase an ugly picture and draw a pretty one over it. To attempt to correct improper and incorrect statements in the news media is ineffective, but to impart information which would lead to a headline story revealing the correct and proper information has a more influential impact on John Q. Public. On February 9, this year, most of our papers throughout the country carried in bold black headlines, "Danger of Bankruptcy Seen for Health Plan." Several times in this article, it alluded to the medical profession's abuse of the government's health insurance program and the doctors are guilty of "inflating their income" through the Medicare plan.

I would recommend to this House of Delegates that serious consideration be given regarding proper instructions to our AMA Delegates to introduce in the AMA House of Delegates an appropriate resolution urging the immediate establishment of a permanent committee to be charged with the responsibility of periodically introducing into the national news media articles to favorably influence public opinion and thinking relative to the medical profession, as well as the inadequacies of the socialistic schemes which we of the medical profession have decried as inefficient and bad for the country. I have never yet seen a heavyweight champion of the world who was a counterpuncher. He must throw some offensive punches that are properly directed. We have plenty of factual information in our favor if presented to the public in the proper light; we can "punch" our way back to the position of "leading contender!"

Our activities here in the state of Missouri have begun to change our image due to the labors of our Legislative Committee and your resident staff in Jefferson City, together with the help of all of you, so that, in the last few years, our image of "aginners" is definitely changing. Newspaper articles appearing on the first of February, 1970 praise the cooperation and efficiency of the membership of the Missouri State Medical Association. Governor Warren E. Hearnes stated that the Missouri Medicaid program could well serve as a model for health care programs nationally. This is not to say that we are satisfied with our present peer review system, but we are continuing to evaluate peer review, attempting to provide for more efficient and rapid handling of problem cases.

It is my recommendation that this House again approve the philosophy of peer review. It is my impression that the majority of our constituents are of the opinion that fee policing or, indeed, any other supervision of physicians is best kept in the medical societies. Peer judgments are much more likely to be just and equitable in these matters than are decisions made by outside agencies. At the same time, if we elect to make only the judgments and, by agreement, leave enforcement to government agencies, we may at some future time be excluded from both functions. I would, therefore, suggest that in your deliberations, you not only consider judgments but, also, some mechanism of enforcement.

Another item of recent health legislation deserves comment here since it eventually may have a profound influence on medical practice. That is Public Law 89-749 which provides federal matching funds for the development and operation of health planning commissions under which the state and regional agencies for comprehensive areawide health planning will function. The law specifies in rather loose terminology that either the directors of the planning agency or its advisory council must have at least 51% consumer representation. Many consumer and community groups do not yet have individuals to represent them who are experienced, well informed and have the vision to look beyond immediate factional interests.

To date, the "partnership for health law" has had little effect on the public or health profession in Missouri since the programs are not well advanced. I am of the opinion, however, that this law will have the most far-reaching consequences as the planning councils mature and reach their full power.

State and county medical societies must seek or, if necessary, demand their proper representation on the executive bodies of the planning councils. We must not accept purely advisory functions.

I would recommend that this annual session of the House of Delegates take steps to instigate active participation on the local level which can be channeled through the Councilor back to the state level so that an overall record and evaluation of the activities in our state can be maintained at our Jefferson City office. Dr. Robert Kelley of St. Louis, a member of the Governor's Advisory Council on Comprehensive Health Planning and Chairman of our state Committee on Health Planning, stated very succinctly the case for physician involvement at our recent county Society Officers' Conference in Jefferson City and I quote, "If the physician is to have any control over his destiny, he must surely be a party to any and all planning mechanisms that affect health care." Dr. Kelley was especially referring to Public Law 89-749, "Partnership for Health."

I commend Dr. Kelley and others in the Association who have been active in health planning in Missouri, and I urge every Missouri physician to participate in such programs now—before it is too late.

Approximately three years ago, a special committee of the Council, designated as "Long Range Planning Committee," took an in-depth look at the changing socio-economic environment and federal legislation and its effect on the practice of medicine, as well as the basic organization of this Association with special consideration in regard to how we might streamline our committee structure and better prepare ourselves to meet the challenges that are constantly evolving in the health fields. The final draft of recommendations of this committee in conjunction with the recommendations of your standing Committee on Constitution and By-Laws is enclosed in your Delegate's Handbook and is before you for consideration. I, like Dr. McCraw, recommend their adoption.

There are more than 30 national voluntary health organizations, all of which are attempting to raise money and control some segment of the spectrum of medical care. These lay organizations are powerful and influential and are actively seeking representation on the comprehensive health planning community boards. They need to be under the "Umbrella" of medical surveillance. We need to know what they are doing and they need, and often ask for, medical guidance. I, therefore, believe that physician participation and leadership is most important in all the voluntary health agencies of our state. I hope to see our membership take an even more active role in these voluntary agencies during the ensuing year.

Many of you are aware that public and governmental pressures are already being exerted for compulsory requirements to include postgraduate study, periodic reexamination, recertification and relicensure.

I would recommend that this house endorse the philosophy of lifelong postgraduate study by all physicians and that you carefully consider mechanisms to develop programs and incentives for such postgraduate study at this session. What *should we do* with physicians who isolate themselves and practice inferior medicine? I would suggest that you consider a program requiring a certain number of hours of postgraduate training before recertification of a license to practice in Missouri is granted. This may be a solution to ward off compulsory federal regulation. I would recommend that we consider the formulation and introduction of a bill in our Legislature to accomplish this objective. This will serve to bring all Missouri physicians into the mainstream of medicine.

I find it exceedingly difficult to condone federal compulsory requirements.

Some of you have attended councilor district meetings and have been favorably impressed. I would recommend that the delegates

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request their respective councilors to organize a councilor district meeting at least once each year until sufficient experience has been gained to fully evaluate their value.

I would further recommend that the programs for such meetings include the following:

1. The showing of films prepared by the AMA or a personal presentation, perhaps, by our AMA Field representative to thoroughly inform our constituents regarding what the AMA is doing for its members. In those areas in which the grassroot membership cannot be reached by such a meeting, I would recommend that at least one of the available AMA films be shown at one staff meeting in every hospital in the councilor district *so as* to stop this perennial question, "What does the AMA do for me?" This type of indoctrination also will probably answer, "Why should I belong to the Missouri State Medical Association? What does it do for me?"

2. A part of the program should be devoted to a discussion of the "PAC" movement. An open discussion of local, district and state candidates to assess their qualifications and abilities would be helpful in "PAC" planning. I want you to know the "PAC" movement is an organization that works from the bottom up, not the top down. They are asking for a "hotter line" from the stockholders to management to prevent sterility in the top echelon.

As a state, we are far down the list in total monies contributed in 1969. It is good to see more county societies employing "joint billing." The year, 1970, should see us elevate our position in the national standing. I hope to see "joint billing" statewide in this year, for all of you know the political campaigns of our friends are expensive.

I would recommend further that we continue to hold County Society Officers' Conferences because this is another way to bring us closer together and inform more members about the activities of our State Association, our Missouri Political Action Committee and other facets of our profession.

We must continue to work for and support projects which produce more physicians, such as the University of Missouri Medical School at Kansas City and our Missouri Medical Foundation loan fund. Dr. McCraw has often raised the question, "What can we do to get a higher percentage of doctors graduating from our medical schools to stay in Missouri?" I would like to see this House establish a mechanism whereby Missouri medical students will be contacted by letter or in person at least twice during the third and fourth academic years, as well as during their internships. As some of you know, MSMA has established a current mimeographed brochure on openings for doctors in our state as well as on the size of the towns, available facilities, etc. If an ongoing contact with young physicians is maintained and they are made to feel that we in the MSMA want them, certainly we should get more men to locate in the areas of need in our state.

To fill "the shoes" being vacated by Doyle McCraw seems to be a tremendous task. I would plead for the help of every member of the State Association so that our organization can be made an even more important and more meaningful force to work for the well-being of our patients and Missouri medicine.

We have important jobs to do, which will take work by many. I trust I can count on you. Let's make our state society work from the "Bottom-up."

Report of

Mrs. James A. Reid,

President of the Woman's Auxiliary

Mrs. James A. Reid, President

Mr. Speaker, Dr. McCraw, Members of the House of Delegates and Guests:

It is a very great honor and privilege for me to come before you. It has been said, "We make our living by what we get, but we make our life by what we give—

Do all the good you can
By all the means you can
In all the ways you can
In all the places you can
At all the times you can
To all the people you can
As long as ever you can."

With these thoughts in mind, I'd like to tell you what your wives have done, collectively and individually, as members of the Woman's Auxiliary to promote the projects and ideals of the MSMA and the AMA during the past year.

The 27 organized auxiliaries and the members-at-large have done many, many things in a multitude of areas. I am going to highlight only a few.

The first concern is Health Careers. It is estimated that the United States needs 10% of each high school graduating class in medicine and allied health fields. This is a vital need and it must be filled. I believe that our Auxiliary activities in this area will be of special interest to you since their success can benefit you personally.

One of our county auxiliaries worked out a pilot program designed to attract the attention of these young people . . . introduce them to the opportunities available . . . and interest them in actually preparing for medical and paramedical careers.

Since many students have no exposure to a hospital or to the various careers in medicine and allied health, the county auxiliary arranged a special tour of the hospital. Students from the seventh and eighth grades were selected since most high school counselors plan the student's four-year course of study while he is in the ninth grade.

These students saw the film, "Horizons Unlimited," at the school, then were bussed to the hospital where they toured X-ray, Laboratory, Emergency Room, Physical Therapy, Food Service and the Store Room. In each department, the trained personnel explained their work, demonstrated some procedure and answered questions.

Each student was given a copy of "Horizons Unlimited," a list of Allied Health Occupations and Minimum Educational Requirements, all AMA-approved material. Most important, each student filled out a file card with name, address and career preference. Those interested in any health-related occupation will be encouraged and followed with brochures and available books in their field of interest. We are confident that this program will open doors to worthwhile careers that otherwise would not be opened for these young students.

If you are interested in recruiting high school students in your community and alerting them to the many opportunities available to them, you will find the school, teachers and hospital eager to cooperate. We have this program worked out step-by-step, so check with me if this appeals to you. I will be happy to share the benefits of our experience with you. I might add, this county auxiliary has 11 members.

Our second concern is Children and Youth with emphasis on drug abuse. This is an educational program for both youth and parents. The National Auxiliary has made a package program entitled "Drug Abuse" available for each county auxiliary or member-at-large. It explains how to set up meetings, lists possible films to use and suggests display ideas that are interesting to our youth.

The Auxiliary works constantly on increasing membership. Is your wife a member? If not, why not? She is needed. Give us her name and we will extend a special invitation to her to join us in our community efforts.

Other areas of concern are International Health, Mental Health, Community Service, Rural Health, Medicine and Religion, AMA-ERF, Legislation, Safety and Missouri Loan Foundation. We have such a wide range of projects, any member can find something of interest. I have stressed the importance of the idea "one woman in a town or one woman in a group" can effectively carry on the Auxiliary program.

In January, Dr. Arthur Neilson, Environmental Health Chairman for the MSMA, asked the Auxiliary for help. Dr. Neilson; Mr. Tom Fox; Mrs. William Walker, President-Elect of the Womans Auxiliary; and I have been concentrating our efforts in

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a pilot program for Missouri on water pollution. We will present this to our Auxiliary House of Delegates on Saturday morning.

On behalf of all Auxiliary members, I wish to express our thanks and appreciation for your concern and support of our many projects.

I want to extend personal thanks to Dr. McCraw; the Advisory Council—Dr. Miller, Dr. Kerr and Dr. Bradshaw; and to Mr. Ray McIntyre and his staff. They have given me much support this year. And, now, we wish for you a very wonderful Convention.

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(Continued from page 454)

REGIONAL BLOOD INVENTORY SYSTEM

■ Dr. William Mayer was asked to brief the Council on a proposed regional blood inventory system, which was submitted to the Missouri Regional Medical Program for funding. The funding requested for the first year was $82,000. This project was submitted jointly by the Department of Pathology and the Department of Industrial Engineering at the University of Missouri. The purpose of the proposal is to establish a matrix for better distribution of blood in Missouri. He indicated that the proposal has been discussed with the Red Cross and has been approved by the MRMP Advisory Council and forwarded to the Division of Regional Medical Programs in Washington for their consideration. Dr. Mayer discussed some of the problems involved in the distribution of blood at the present time and felt that this proposal, if approved, would alleviate many of these problems. Motion was made and seconded that the Council go on record in support of this project. The motion carried.—**Referred to Miscellaneous Affairs Committee.]**

PROPOSED OUTPATIENT CLINIC AT M.U. MEDICAL CENTER

■ Dr. William Mayer then gave an informational report regarding the proposed outpatient clinic-school of nursing building for the University of Missouri Medical Center complex. He indicated that a request for funds for this purpose has been made to the State Legislature in the last two sessions. Dr. Mayer stated that the original outpatient clinic building was designed for 45,000 outpatient visits per year and, during this last year, it has functioned at double the level for which the structure was developed. The proposed structure would enable 125,000 outpatient clinic visits per year. Construction of this clinic facility would enable the conversion of the existing outpatient clinic's activity into a comprehensive and continuing care program for patients within the medical center setting and would provide the basis of a markedly expanded family practice residency program. Dr. Mayer indicated that due to critical space limitations, enrollment in the School of Nursing has been limited. The new building would make it possible to increase the number of nurses admitted to the baccalaureate program and also the number of nursing graduate students considerably. Dr. Mayer indicated that construction of this building would enable the school to produce much-needed, well-educated nurses for the state. He stated that if matching funds are not forthcoming from the State Legislature this year, the federal funds will be rescinded and they would then have to start from the beginning. Dr. Miller thanked Dr. Mayer for his informational report.—**Referred to Medical Education Committee.]**

REPORT OF THE COMMITTEE ON TUBERCULOSIS

■ Dr. Florence MacInnis was called upon to give a report of the Tuberculosis Committee. Dr. MacInnis reported that a joint meeting of the MSMA Committee on Tuberculosis, Missouri Thoracic Society Executive Committee and the Missouri Tuberculosis and Respiratory Disease Association was held recently. Mr. Gail Bank, representing the Continuing Medical Education Program of Missouri University, was in attendance and explained the telelecture program operating in 52 hospitals in Missouri. Dr. MacInnis reported that she recently attended a demonstration of this program at St. Joseph's Hospital in Kansas City. Future plans are to sign up 45 additional hospitals. The program is basically a two-way telephone system. The base headquarters is located at Missouri University. Funds for this program are provided through the Missouri Regional Medical Program. The Committeee felt that publicity for the program could be gained through Missouri Medicine and *The Missouri Family Doctor,* plus publications of the Missouri Tuberculosis and Respiratory Disease Association. The joint committees endorsed and recommended participation in the telelecture program.

Dr. MacInnis indicated that Dr. Brasher had reported on a publication prepared by the Division of Health, *Chemotherapy in the Treatment of Tuberculosis.* The publication is to aid nurses in understanding drug therapy for tuberculosis and, at the present time, is being studied for possible revision. Dr. Brasher further reported that his Department of Medicine at Mount Vernon is writing a related article on drug therapy which will be offered to Missouri Medicine for publication.

Dr. MacInnis stated that discussion was held regarding present policy in the use of INH and PAS and other chemotherapeutic drugs for tuberculosis, particularly regarding certain side effects. She further stated that attention was called to the Tri-State Clinical Meeting on March 6-8, 1970 at the Marriott Hotel, Chicago, Ill.

Dr. MacInnis indicated that Dr. Belden had reported that, pending organization of hospital care of tuberculosis patients, a program for drug therapy is being held in abeyance. It was suggested that a preface be inserted in all written publications with regard to chemotherapy so that content would be accepted as caution or warning rather than policy. Motion was made and seconded that the report of the Committee on Tuberculosis be approved. Motion carried.—**Referred to Medical Education Committee.]**

REPORT OF LEGAL COUNSEL

The Chairman called on Legal Counsel for a decision regarding the possible change from Robert's Rules of

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Order to Sturgis. Counsel indicated that, at this time, he could see no reason for changing the Council's parliamentary procedure.

UNIFORM ANATOMICAL GIFT ACT FORMS

■ Dr. William Allen gave a brief talk regarding the Uniform Anatomical Gift Act and the proposed forms to be used. He indicated that, at the present time, the Uniform Anatomical Gift Act has been passed in 39 states. The bill introducing this legislation in Missouri is known as Senate Bill # 43 and did pass. Copies of the proposed uniform donor forms were distributed to Council members. Dr. Allen indicated that *Modern Medicine* had agreed to print articles regarding the Uniform Anatomical Gift Act and, also to print copies of the forms to be used. Discussion followed regarding distribution of these forms and where they could be obtained. Dr. Allen indicated that this had not definitely been decided, but felt that it would be through the medical schools, osteopathic schools, Lions' Eye Bank, Kidney Foundation and other similar organizations. It was brought out that possibly the Division of Health might be the likely central distribution point for the donor forms. The motion was made and seconded to approve the forms and mechanism as discussed by Dr. Allen. Motion carried.—**Referred to Miscellaneous Affairs Committee.]**

AMA COUNCIL ON MEDICAL SERVICE

Dr. Washburn indicated that at the last Council meeting in St. Louis, the Council went on record as approving recommendation of Dr. Neilson for the Council on Environmental and Public Health of the AMA and as approving recommendation of Dr. Benoit for the AMA Council on Medical Service. Dr. Washburn asked for reaffirmation of the recommendation of Dr. Benoit. It was moved, seconded and passed that such recommendation be made.

Dr. Kerr stated that he had received a letter from the "People to People Program" in Chicago regarding a proposed European tour of physicians. Starting in Brussels, the tour would include Finland, Russia and other Iron Curtain countries. The trip is for the purpose of looking over the medical installations. Dr. Kerr asked for the endorsement of the Council regarding his participation in promoting this tour among MSMA membership. A motion that the Council endorse his participation was made, seconded and passed.

EMERGENCY HELICOPTER AMBULANCE SERVICE

■ At the request of Dr. Robert Kelley, Chairman of the MSMA Committee on Comprehensive Health Planning, Mr. Carroll of the MSMA staff reported on a meeting of the Governor's Advisory Council on CHP (of which Dr. Kelley is a member) held in St. Louis on December 12. At that time the Advisory Council received from the Governor a request that the Council study a proposed emergency helicopter ambulance service for the St. Louis area as proposed by Mr. O'Holloran of St. John's Mercy Hospital. The Governor's Advisory Council directed its Task Force on Accessibility to Health Services to study the proposal. Mr. Carroll stated that Dr. Kelley indicated he thought the MSMA Council might be interested in offering the cooperation of the MSMA in the study of the project.

Dr. Richardson Noback, Acting Dean, University of Missouri—Kansas City, School of Medicine, indicated that it was a pleasure to be present at the meeting and expressed his appreciation for the support of MSMA and the Jackson County Medical Society regarding the Medical School at Kansas City.—**Referred to Miscellaneous Affairs Committee.]**

AMA JUDICIAL COUNCIL

Dr. Miller gave a brief report on a regional meeting in Chicago sponsored by the AMA Judicial Council with representatives from seven midwestern states in attendance. He indicated that many points were covered including bank cards, lay laboratory advertisements and a real introduction into peer review. Dr. Miller stated that developments in various state mechanisms for Judicial Council activity at the county and state levels were brought out. He further indicated that he felt the meeting was worthwhile and that MSMA should continue to send representatives to such conferences.

REPORT OF MEDICAL ECONOMICS CONTRACT COMMITTEE

■ The Chairman called on Dr. Wiegand, Chairman of the Medical Economics Contract Committee, for a report regarding his Committee's activities. Dr. Wiegand said that the Medical Economics Contract Committee held a meeting in Jefferson City on November 16. At this meeting, Dr. Froelich, chairman of a special subcommittee of the Medical Economics Contract Committee, gave a report regarding a meeting with Division of Welfare officials. The special subcommittee was set up to "discuss Medicaid payment procedures with Mr. Carter and review these procedures in light of the agreements when the program went into effect." Dr. Wiegand indicated that Dr. Froelich presented the following three recommendations of his subcommittee in light of the problems regarding Medicaid:

1. Establishment of a liaison committee to function between the Medical Economics Contract Committee and the Division of Welfare.

2. That the Medical Economics Contract Committee make efforts to establish a group of visiting physicians recommended by members of MSMA and approved by the President of MSMA to assist the Division of Welfare in evaluating the practice of specific physicians under the Title XIX Program, when such assistance is requested by the Division of Welfare.

3. That specialty groups Review Committees originally established and set up at the beginning of the program be more effectively used by the Division of Welfare working through MSMA.

Dr. Wiegand indicated that discussion followed regarding the recommendations of the subcommittee. It was suggested that the MSMA staff contact the specialty organizations, giving them a list of the Review Committee members for their organizations and asking whether or not the list is up to date. Also included with this list would be background information regarding the Medical Economics Contract Committee, including the duties of the Review Committees.

Dr. Wiegand reported that the Committee voted to recommend to the Council the establishment of a special small liaison committee with the Division of Welfare, as proposed by the subcommittee, with the Council to name the members of the liaison committee.

He further indicated that the Medical Economics Contract Committee approved Recommendations # 2 and # 3 of the subcommittee regarding the physician visitation program and more effective use of the Review Committees, with the MSMA office sending out the information indicated in Recommendation # 3.

Dr. Wiegand indicated that the following statement was adopted by the Committee regarding alternatives available to the Division of Welfare on May 1, 1970, when Medicaid funds may be expended in Missouri:

1. That Mr. Carter be told that it would appear to the Committee that he has two alternatives concerning Medicaid after May 1.

   a. Either that the program be discontinued after that date or
   b. That the legislature be asked for a supplemental appropriation to continue the program.

2. That the medical profession will continue to provide physician service for the program if funds run out, but this service would definitely be limited due to the lack of funds for laboratory work, drugs and hospital care.

3. The medical profession should consider publicizing the fact that it is trying to do more about improving the program through its own review mechanisms.

Dr. Wiegand reported that the following motion was adopted by the Committee, "We recommend to the Council that when the liaison committee is established, that it be asked also to investigate the possibility of establishing more formal mechanism of peer review than the present method and if such a new mechanism is established, to consider making the physician visitation program a part of the new peer review mechanism. Also, that physicians participating in this visitation program be paid by MSMA from funds made available by the Division of Welfare."

Dr. Wiegand stated that he informed members of the Committee that, in the future, they may be asked to participate in case reviews for St. Louis Blue Shield for its new UCR Program.

Dr. Wiegand indicated that he felt very careful consideration should be given to the appointments made on the Medical Economics Contract Committee and the Review Committees, stating that some members of review committees did not know they had been appointed and were not aware of their obligations. He stated that he did not know whether this could best be done by mail or by some type of orientation program at the Annual Meeting or both. He indicated that he felt very strongly about the fact that persons named to the Medical Economics Contract Committee must be interested in its functions and be willing to attend the meetings.

Dr. Miller asked permission to discuss peer review briefly and expressed his thoughts on the matter as follows: He said the problems involved were big and many and, in the first place, our peer review mechanism has not worked. He said that the peer review mechanism should be a research and educational effort. He added that it is the only mechanism we have for quality and cost control and it must be a committe effort. He stated it is wishful thinking to hope that you can have 20 specialty review mechanisms, including general practice, to do this job. He said that these men cannot sit down and take six to seven hours from their duties. If, in fact, this peer review mechanism is educational and is research, we must have it and it must be good. It has been less than effective during the past year. If it is going to work, it must be a multispecialty group. Perhaps there will be two, three or four throughout the state. Also, there must be a staff to assist when there is a need for consultants in any of the specialties. These people should be available to the Committee. Dr. Miller stated that the Welfare Department should have some part of its budget marked for this matter. He said that it certainly seems reasonable that the Regional Medical Program might help finance some of this. If it is educational or research, it could possibly be financed through RMP. We need a small committee to study and propose a practical and workable review mechansim. Let this committee look at this entire concept and what the problems have been and what is necessary to establish the proper mechanism and report to the Council. He said he was sure that all members of the Council recognize the real importance of this matter.

Dr. Miller proposed the following three names for this Ad Hoc Committee: Drs. Rae Froelich, Lebanon, as Chairman; Al Biggs, Kansas City; and Joe Peden, Jr., St. Louis. They will assess the problem, make recommendations to the Council as to peer review committee functions and committee components. In the meantime, Dr. Miller suggested that the staff proceed to project what it is going to cost and make necessary contacts to determine from where monies might come to supplement this effort.

Dr. Miller said he hoped the Council would accept the report of the Medical Economics Contract Committee and also accept his recommendation for the Ad Hoc Committee, and this Committee be launched immediately to investigate, study and report back to this Council at its next meeting with a projected plan and budget with hopefully a means of financing it.

Dr. McAlhany asked what Dr. Miller hoped this Ad Hoc Committee would accomplish.

Dr. Miller indicated that, hopefully, the Committee note what we have not done, what they think is realistic and what can be done. They may feel there should be a district or regional type of structure such as a five- or six-man peer review committee. Hopefully, they will come up with something concrete.

Dr. Peterson indicated that he felt they must define the state's responsibility and the responsibility of MSMA relating to Medicaid. There are certain areas which by law are the responsibility of the state.

Dr. Cope stated that he felt this Committee may well give careful consideration to proposals of eliminating certain troublesome individuals from the Medicaid Program. Elimination of less than 1% from the program might eliminate 90% of necessary review work.

The motion was made and seconded that the report of the Medical Economics Contract Committee be accepted. Motion carried.

A motion was made and seconded to proceed with the appointment of an Ad Hoc Committee directly responsible to this Council, as suggested by Dr. Miller, for review of this problem and to report specific recommendations to this Council at its next meeting. These appointees are to be contacted by the staff by telephone on December 15, requesting their acceptance.—**Referred to Resolutions Committee.]**

REPORT OF SCIENTIFIC AND POSTGRADUATE WORK COMMITTEE

■ Dr. Yore gave a brief report on the Scientific and Postgraduate Work Committee and indicated that there is still one problem area concerning speakers for the 1970 Annual Session. There are several possibilities for the first program on Friday morning: Dr. Egeberg, Assistant HEW Director; Dr. Walsh of the S. S. Hope; and Dr. Jesse L. Steinfeld, new Surgeon General. It was felt by the Committee that if none of these speakers could be obtained, consideration should be given to a program on malpractice insurance or on health insurance today.

Dr. Yore stated that the Committee recommends to the Council that a modest honoraria be paid to out-of-state speakers for each day a speaker participates as a scheduled speaker on an annual meeting program, plus expenses, and that the Association not pay expenses or honorarium to Association members for participation on the Scientific Program at annual meetings, and further recommends that any communications with speakers make this policy clear.

Dr. Yore stated that Gail Bank, Director of Continuing Education at the University of Missouri School of Medicine, attended the meeting of the Committee and discussed continuing education programs. He stated that the discussion followed regarding continuing education programs and the role the state association should have in them. The following recommendation was approved for presentation to the MSMA Council: "The Scientific and Postgraduate Work Committee recognizes the great importance of MSMA leadership in the organization of a program which will concentrate on ascertaining needs of Association members in the field of continuing medical education and the meeting of these needs. Does the Council desire this committee to work in this field or should another group be named? The Committee believes the implementation of an over-all program in the field of continuing education has great urgency." Discussion followed Dr. Yore's report.

It was suggested that another committee at this time might be confusing and it was felt that the subject of continuing medical education and who should have charge should be held in abeyance in view of possible restructuring of the MSMA committees and the recommendations to come from the Ad Hoc Peer Review study committee. Dr. William Mayer indicated that he felt a sound continuing medical program is a very real need and hoped the Council would bring it up again for greater discussion and consideration.

A motion was made and seconded to approve the recommendation of the Committee regarding honorarium and expenses for out-of-state speakers at the Annual Session and, also, the recommendation regarding nonpayment of honorarium and expenses for MSMA members on the Annual Session Program. The motion carried.

Legal Counsel indicated that he had studied the decree that was entered in the anti-trust suit brought against the American College of Pathologists and he did not believe the activities of MSMA were affected by the decree.—**Referred to Medical Education Committee.]**

NEXT COUNCIL MEETING

The next meeting of the Council will be held on Friday, January 30 and Saturday morning Jan. 31, 1970, immediately preceding the Officers' Conference which will begin at 1:45 PM on Saturday afternoon. Mr. McIntyre indicated that this is the meeting at which the Council also determines material to be placed in the Handbook for the House of Delegates. The meeting will begin at 9:30 AM at Ramada Inn, Jefferson City.

The meeting adjourned at 12:10 PM.

Meeting of Jan. 30-31, 1970

The MSMA Council met at the Ramada Inn in Jefferson City on Jan. 30-31, 1970. Gerald L. Miller, M.D., Kansas City, Chairman, called the meeting to order. Those in attendance were Drs. Miller; John N. Martin, St. Joseph; Walter T. Gunn, St. Louis; Robert A. Mayer, Clayton; James C. Cope, Columbia; William D. Bradshaw, Clinton; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; Eugene T. Hansbrough, Poplar Bluff; Doyle C. McCraw, Bolivar; Joseph L. Fisher, St. Joseph; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; Paul F. Max, St. Louis; E. D. Imes, Maryville; David N. Kerr, Clayton; Stanley S. Peterson, Springfield; J. Loren Washburn, Versailles; Hector W. Benoit, Jr., Kansas City; William D. Mayer and William C. Allen, Columbia; Richardson K. Noback, Kansas City; R. W. Froelich, Lebanon; Flavius Pernoud, St. Louis; William Stoneman, III, St. Louis; John Buesseler, Columbia; Messrs. John W. Noble, Kennett; James Baker, St. Louis; John A. Hailey, Jefferson City; Hollister Smith, St. Louis; Gary Schnedler, Springfield; Allen D. Smith, Kansas City; T. R. O'Brien, St. Louis; Ray McIntyre, Tom Fox, Bob Carroll, Royal O. Cooper, Jefferson City.

APPROVAL OF PREVIOUS COUNCIL MINUTES

The Chairman called the meeting to order and requested approval of the minutes of the December 13, 14, 1969 meeting of the Council. On motion of Dr. Franklin, duly seconded, the minutes were approved as published.

REPORT OF THE EXECUTIVE SECRETARY

Mr. McIntyre reported that he had just returned from Chicago where he attended a meeting sponsored by the AMA in cooperation with the American Association of Medical Society Executives for senior executive secretaries of larger county medical societies and state medical associations. The purpose of the meeting was to discuss the functions and services of the particular divisions of the AMA, such as the General Council's set up, the Health Services Division, the Budget and Fiscal Control, program and activities of the Communications and Public Relations Committees, scientific publications, scientific activities, medical education, etc. He stated that it was a very enlightening meeting.

Mr. McIntrye said that correspondence had been received from Dr. Howard of the AMA in reply to our letter inviting the AMA Interim Session to be held in St. Louis in 1975 or 1976. Dr. Howard stated that our invitation will be referred to the Board of Trustees for consideration for future sites of the clinical session. This probably will be considered at the June meeting of the AMA.

He also reported that a letter received from the American College of OB-GYN, which had been sent to all State Associations for information, stated that the Executive Board of the American College approved a motion urging that whenever any organized body of medicine makes proposals for medical care or enters into negotiations for delivery of medical care with any agency and if maternity services and gynecological services are to be a part of the package, an obstetrician-gynecologist of the American College should be a member of such a negotiating team.

■ Mr. McIntyre reported that the Special Session of the Missouri Legislature had ended. It was voted to place the Income Tax Referendum on the April 7, 1970 election ballot. The Governor had requested approximately $21 million in emergency funds, which were appropriated. Out of this $21 million, there were approximately $4,400,000 Title XIX funds appropriated to be matched by federal funds for funding the Missouri Medicaid Program through this fiscal year.—**Referred to Reference Committee on Resolutions.]**

APPOINTMENT OF EDITOR FOR MISSOURI MEDICINE

Mr. McIntyre announced that consideration usually is given to the appointment of the Editor of Missouri Medicine each year at this time. On motion of Dr. Gunn, duly seconded, it was unanimously voted that Dr. Finnegan be reappointed as Editor of Missouri Medicine and that he make recommendations for the Editorial Board and Publications Committee at the next meeting of the Council.

TREASURER'S REPORT

Dr. Franklin gave a brief resumé of the financial status of the Association, stating that the financial result of the activities of the Association for the year 1969 is an excess of expenses over income of $9,488 which had been anticipated. He said that the 1969 audit of the Association's accounts will be published in the March, 1970 issue of Missouri Medicine and also will be included in the Delegate's Handbook for the 1970 Annual Session. On motion of Dr. McCraw, duly seconded, the Financial Report was accepted.

MISSOURI STATE MEDICAL FOUNDATION

Mr. Fox stated that the complete audit of the Missouri State Medical Foundation will be published in Missouri Medicine and will be included in the Delegate's Handbook. He stated that assets of $347,000 include $41,000 approved in loans for 1969 applied for by 60 different loan applicants. In addition to the regular income, the Foundation collected about $2,600 in contributions, $8,800 in principal repayments and $1,600 interest in 1969. He also stated that one student loanee was killed in an accident and the Foundation collected the unpaid loan of $500 plus $7.50 in interest from the insurance company.

COUNCILOR DISTRICT REPORTS

Dr. Gunn reported that at a recent meeting he attended in St. Louis there was considerable discussion regarding Blue Cross decisions on hospital utilization problems and the foreign graduate licensure problem. He suggested that the Council give these matters careful consideration.

■ Dr. Franklin reported that a meeting was called with the various hospitals in the St. Louis area to discuss problems that the doctors and hospitals are having with St. Louis Blue Cross payments for numerous hospital cases, particularly Medicare cases. Dr. Franklin said this matter has been turned over the the Council of both the St. Louis Medical Society and the St. Louis County Medical Society for study and recommendation.—**Referred to Reference Committee on Resolutions.]**

Reverse the order of "Past, Present and Future" and you have three dedicated MSMA leaders who had been busy during the 112th Annual Session and happy to greet the more than 1,000 MSMA and Auxiliary members and guests who attended the meeting. *(Left to right)* President-Elect Gerald L. Miller, President Joseph L. Fisher and Immediate Past-President Doyle C. McCraw.

Dr. Mayer reported that the St. Louis County Medical Society's annual installation dinner was scheduled for Friday evening, January 30 and that Dr. Miles C. Whitener will be installed as President for 1970. He also stated that Dr. McCraw will drive with him to St. Louis for this occasion.

Dr. Mayer said it had been decided that the St. Louis Medical Society and St. Louis County Medical Society would hold some joint Council meetings and said this is a step in the right direction and should be good for medicine in St. Louis.

■ He also reported a problem in receiving notification by MSMA of the number of delegates St. Louis County is entitled to have for the Annual Sessions of the State Association. In view of this situation, he presented the following resolution to the Council:

Whereas, The number of Delegates to the MSMA are elected on the basis of the number of members a society has, and

Whereas, The number of members for such society are counted by the MSMA on December 31, and

Whereas, The MSMA expects and wants the list of officers of the various societies including the delegates and alternate delegates early in January, and

Whereas, Some societies in cooperation with the MSMA hold their elections in November or December so that their officers for the coming year can be reported to the MSMA early in January, and

Whereas, There has been more than one instance where the number of delegates elected by the society exceeded the number allowed by the MSMA on December 31, and in some instances was not equal to the number allowed by the MSMA on December 31, now therefore be it

Resolved, That the MSMA shall count the members of each society on September 30, of each year, and prior to October 10, of that same year notify each society how many Delegates and Alternate Delegates are to be elected by the various societies and recognized as Official Delegates from that Society."

Discussion followed regarding the above resolution in view of the fact that the By-Laws of the Association would have to be changed in order to make the suggested count change to September 30 instead of December 31.

On motion of Dr. Mayer, seconded by Dr. Kerr and

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passed, it was agreed that the resolution be approved as a part of the Council report to the House of Delegates for consideration at the 1970 Annual Session.—**Referred to Reference Committee on Constitution and By-Laws.]**

■ Dr. Cope called attention to St. Louis Blue Cross Medicare Bulletins Nos. 64 and 67, which were distributed to administrators of hospitals and extended care facilities and have caused considerable concern. It was pointed out that further discussion regarding these bulletins would take place later when Mr. James Baker of Blue Cross will appear on the program.—**Referred to Reference Committee on Resolutions.]**

Dr. McCraw commented on the outstanding contribution of Dr. Eugene Hamilton of St. Louis in the field of medicine. Dr. McCraw reported that he attended the Mineral Area Medical Society meeting on January 22 and visited with Dr. Hoctor, the former Superintendent of State Hospital #4 for many years. He said Dr. Hoctor has retired as Superintendent, but he is still director of outpatient clinics and traveling clinics.

Dr. McCraw stated that he attended the Greene County Medical Society installation on January 26, when Dr. McAlhany was installed as the new President. He said he plans to attend a meeting in Moberly of the CMMR Society and an AMPAC meeting in Washington, D. C. during February.

Dr. Miller stated that he and Drs. Fisher and McCraw attended the Sixth Councilor District meeting in Warrensburg for which Dr. Grey Dimond was the principle speaker. He spoke on the projected new medical school at Kansas City. Dr. Dimond is Provost for the Health Sciences of the University of Missouri, and Dr. Richardson K. Noback is Acting Dean of the new Medical School. Dr. Miller called attention to a very worthwhile clipping from the *St. Louis Globe-Democrat* which outlined a new approach to training new physicians. Dr. Miller proposed that a special communication, along with a copy of this clipping, be distributed to the MSMA Delegates and other physicians throughout the state. On motion, duly seconded, this suggestion was approved.

Dr. Miller also reported that Dr. McCraw and Dr. Kerr attended the annual Presidents Dinner in Kansas City and stated that all were interested in the remarks of Mr. Martin, President of SAMA, who spoke at the dinner.

■ Dr. McAlhany reported that Greene County Medical Society had met with the officers of the Neighborhood Health Center (OEO) and representatives of various health agencies in the county to discuss plans for the operation of such a health center. In reviewing what has taken place in other areas, it was noted that those centers which have not worked in cooperation with county medical societies have not functioned well. He stated that a local Comprehensive Health Planning group for Southwestern Missouri has applied for a charter to function under the State Comprehensive Health Planning Agency.

Dr. McAlhany also reported that a question has arisen with the Missouri Sales Tax Division as to whether or not the Greene County Medical Society Bulletin is subject to sales tax.—**Referred to Reference Committee on Miscellaneous Affairs.]**

■ Dr. Stricker reported the only problem in his area was that hospitals were having difficulty collecting from Medicare payers, due to the fact that there are no "extended care facilities" in that area and some patients have to remain in the hospital and Medicare refuses to pay for them.—**Referred to Reference Committee on Resolutions.]**

CURTEMAN CASE

■ MSMA legal counsel discussed developments of the Curteman Case and brought the Council up to date on the decision by the Jackson County Circuit Court. He stated that notice of appeal has been filed which holds the matter open for specific appeal at a later date if decided upon. Copies of the decision had been distributed to the Councilors for their information.

Dr. Pernoud, Chairman of the Eye Health Committee, was invited to present the views of the Eye Health Committee in regard to the judgment in this case.

After further discussion, it was decided that no action be taken on this report at this time and to await further developments which can be considered at the next Council meeting on April 1.

Dr. John Buesseler, President of the Missouri Ophthalmological Society, stated that the action taken in Missouri in regard to the Curteman Case is of great concern nationally and Missouri is carrying the ball. He said that much is being done nationally toward the development and training of assistant personnel in the field of ophthalmology.—**Referred to Reference Committee on Medical Education and Public Welfare.]**

MEDICARE BULLETINS NOS. 64 AND 67

■ Dr. Cope reported that some time ago he was invited by the Hospital Administrator of Boone County Hospital to attend a meeting in Jefferson City at which Mr. James Baker of the St. Louis Blue Cross office and representatives of the Social Security Administration discussed Medicare Bulletins Nos. 64 and 67. He stated that after the meeting he felt it would be worthwhile to have Mr. Baker appear before the Council and present the same material that he presented at this meeting.

Mr. Baker stated that he welcomed the opportunity to appear before the Council since these Medicare Bulletins are important to hospitals, intermediaries and the doctors. He said that there has been a change in Social Security regulations as far as certification and recertification is concerned and the above-mentioned Bulletins have been sent out by St. Louis Blue Cross for the Social Security Administration. Effective Jan. 1, 1970, the first certification is reduced to 12 days instead of 14; and recertification within 18 days instead of 21 days. Social Security has requested that fiscal intermediaries review more claims for patients in hospitals and also in "extended care facilities." He said the covered Medicare criteria for hospitals at present is actually that which was published for extended care facilities. He explained that St. Louis Blue Cross did send these bulletins out because this is the information that they received from HEW and they have to use this criteria to pay claims for coverage.

Mr. Baker stated that there are three particular points considered as criteria requirements for hospitals in Medicare payment coverage: (1) The level of individual patient needs; (2) Specific services required to fill those needs; and (3) Type of personnel needed to provide these services which are to be covered.

He said that Blue Cross as fiscal agent must review all

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1. Kannel, W.B., *et al.*: *Circulation* 35:734, 1967.
2. Thomas, H.E., Jr., *et al.*: *Med. Times* 95:1099, 1967.
3. Albrink, M.J., in: Beeson, P.B. & McDermott, W. (eds.): *Cecil-Loeb Textbook of Medicine*, ed. 12, Phila.: W.B. Saunders Co., 1967.

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bills and appropriate medical records and reject billing where the care is of the uncovered nature. He said that the intermediary is not attempting to prescribe or say how long a patient should stay in the hospital. In reviewing these cases, they only have the bill from the hospital which includes the charges, but no detail on the case which indicates what types of drugs were given. Therefore, they must secure the appropriate medical records from the hospital to clarify these bills. Mr. Baker mentioned that in making these determinations for the Government, the patient has the right to request a reconsideration by going to the local Social Security Office and, in turn, the request will be sent to Baltimore where a complete separate review will be made of the case. Blue Cross also must send all the information to Baltimore, and the patient has the right to request a hearing if he desires to look further into the case. Mr. Baker explained that Medicare does not provide for custodial care.

Discussion followed regarding whether or not the Social Security Administration was working on a bulletin to be distributed which would contain the information the physicians need. Mr. Baker explained they are working on a bulletin of guidelines now and it should be available soon.

Dr. Miller thanked Mr. Baker for his report and stated that this report was informational only and that no formal action need be taken by the Council at this time since St. Louis Blue Cross has been made aware of the MSMA position in this matter.—**Referred to Reference Committee on Resolutions.]**

LEGISLATIVE EDUCATIONAL PROPOSALS

■ Dr. Matthews, Chairman of the Legislative Matters Committee, reported that the special Missouri Legislative session appropriated approximately 6 million dollars to be matched with some $18 million in federal funds for water pollution control in Missouri.

He called attention to a Legislative Educational Proposal which had been prepared by the MSMA Legislative Committee under three headings, as follows: 15 items under MSMA Legislative Matters Committee, County Society Legislative Committee Duties and Basic Work of Local Committees. Copies of this report were distributed to the Council and Officers and will be sent to County Medical Society Secretaries.

After discussion, on motion of Dr. Matthews, duly seconded, the report was approved with the request that it be implemented.

Dr. Matthews suggested that a luncheon be held in Washington, D.C. on February 27 in the Rayburn House Office Building for Missouri Congressmen and Senators and their Administrative Assistants preceding the AMPAC workshop. He suggested that the Council authorize the Public Service Committee to spend the necessary amount to carry out this proposal. On motion, duly seconded, the motion carried.—**Referred to Reference Committee on Miscellaneous Affairs.]**

TEMPORARY LICENSURE IN MISSOURI & NON-CITIZEN PHYSICIANS

■ Dr. Miller reported that he had received a letter from Dr. Gunn and numerous letters had been received by other officers of the Association regarding the position of the State Board in not granting non-citizen foreign medical graduates temporary licenses to work in certain hospitals in the St. Louis area.

At a joint meeting of the Councils of the St. Louis Medical Society and St. Louis County Medical Society, the following resolution was adopted to be presented to the Council:

TEMPORARY LICENSURE OF FOREIGN MEDICAL GRADUATES

Whereas, There is a critical shortage of doctors in the State of Missouri, and

Whereas, The House of Delegates of the Missouri State Medical Association has requested the Council of the MSMA to investigate ways and means of overcoming this shortage, such as creating assistant physicians or medical assistants, and

Whereas, There is a ready supply of foreign medical graduates already in the employ of many hospitals, especially in the St. Louis area, who are graduates of approved foreign medical schools, and many already having had training in the hospitals here and in in Canada, and

Whereas, Many physicians, members of the MSMA in Metropolitan St. Louis and surrounding areas are strongly in favor of temporary licensure of properly qualified non-citizen medical school graduates to ameliorate this shortage, and

Whereas, The Laws of the State of Missouri empower the State Board of Registration for the Healing Arts, under chapter 334.045, to grant temporary licenses to foreign medical graduates in state-maintained hospitals, or other hospitals approved by the State Board under the supervision of the Superintendent or Chief of Staff of such institution, and

Whereas, Prior to 1967, temporary licenses were granted to these doctors until the State Board of Healing Arts changed its interpretation to "hospitals with approved teaching programs," thus ignoring the approved and accredited hospitals by such an eminent and national agency, the Joint Commission on Accreditation of Hospitals, and

Whereas, The Board of Healing Arts has chosen to overlook and allow the taking of histories and physicals by medical students, even sophomores and juniors, and also to allow medical students to act as surgical assistants in State Hospitals and "teaching hospitals," and

Whereas, There is a critical need for ancillary help in private voluntary hospitals which at this time can only be provided in most respects by foreign medical graduates, and at the same time, help keep down the cost of medical care to the patient by the voluntary hospitals where the majority of health care is still being delivered, and

Whereas, The State Board of Healing Arts has not seen fit to change its policy regarding temporary licensure of these non-citizen medical school graduates until approved, recommended and strongly urged to do so by the Council of the MSMA, now

Therefore Be It Resolved, That the Council of the Missouri State Medical Association requests the State Board of Registration for the Healing Arts to change its policy so that qualified non-citizen medical school graduates can obtain temporary licensure to serve in private voluntary hospitals approved and accredited by the Joint Commission of Accreditation of Hospitals as well as State, Federal and Municipal operated institutions, and

Furthermore, The Council of the MSMA requests approval of the House of Delegates of the MSMA of this action of the Council and that a copy be sent to the Governor of the State of Missouri.

Dr. Mayer moved and his motion was duly seconded that this resolution be adopted. Considerable discussion followed regarding the resolution and what action should be taken.

Mr. Hailey, Executive Secretary of the State Board of Registration for the Healing Arts, spoke to this issue. He stated that the Board is doing its best to administer the law as it is written.

On motion of Dr. Cope, duly seconded, it was moved that Dr. Mayer's motion to adopt the resolution and further discussion of this entire matter be tabled until the next meeting of the Council. Motion carried 8 to 3, with one abstaining.

Dr. Miller suggested that the Executive Committee of the Association meet with the State Board, if agreeable to the State Board, to discuss this matter further.

Mr. Hailey stated that the Board would be willing to meet with the Executive Committee at any time. He said that the Board will meet in St. Louis on Saturday and Sunday, March 7 and 8, 1970, and if the Executive Committee wishes to meet at that time, he would make the arrangements. It was agreed to meet with the Board on March 8.

ENVIRONMENTAL HEALTH

Dr. Walter Gunn reported in the absence of Dr. Neilson that the MSMA Committee on Environmental Health has been requested by Governor Hearnes to participate in the planning for the Governor's Conference on Urban Affairs. He noted that, unfortunately, the Conference will be held on March 31, April 1 and 2, which are the dates for the MSMA Annual Session. Dr. Gunn reported that Dr. Neilson, the MSMA Committee Chairman, has been appointed as Co-Chairman of the Conference Planning Committee.

Dr. Gunn noted, for the Council's information, that the AMA Council on Environmental and Public Health, of which Dr. Neilson is a member, has been materially strengthened through a substantial increase in both budget and staff.

It was noted that Dr. Hussey, Editor of *JAMA*, will provide a new one-page feature entitled "Environment" for the Journal. Dr. Gunn stated that Dr. Neilson hoped the Council of MSMA will support the present MSMA Environmental Health Committee in its work.

On motion, duly seconded, the report of the Committee on Environmental Health was accepted.

MEDICINE AND RELIGION REPORT

Mr. Carroll reported that the Committee on Medicine and Religion met on a telelecture conference, along with Mr. Gail Bank of the University of Missouri Continuing Education Program, and discussed the possibility of sponsoring one or more programs on Medicine and Religion on the telelecture series in cooperation with the University of Missouri Continuing Education Program. The first one would be in the middle of April. The Committee requested Council approval for this proposal. On motion of Dr. Martin, duly seconded, the program was approved.—**Referred to Reference Committee on Medical Education and Public Welfare.]**

■ Dr. Bradshaw stated that he had just attended a meeting of the State Board of Health. He reported that the Board of Health is looking for applicants for the position of Director of the Division of Health. He stated that the Board is now in a position to actively seek candidates for this position.

Dr. Bradshaw also stated that he had two questions he would like to have answered: (1) He would like an opinion from Legal Counsel of MSMA or the Legal Department of the AMA on the advisability of having patients sign release forms when taking birth control pills; and (2) Policy of Blue Shield regarding paying general practitioners for only one type of service when multiple types of service are performed in the hospital.

Mr. O'Brien explained that it depended on the type of contract the patient had. Some contracts pay for surgery or medical care, if there are two different services performed, on the basis of which is the greater benefit. Other contracts which Blue Shield pays have medical care up to the date of surgery and then pay the surgeon's charge thereafter, and others are paid all the way through.—**Referred to Reference Committee on Resolutions.]**

LPN ASSOCIATION

Dr. Miller stated that a communication had been received from the Missouri Licensed Practical Nurses' Association requesting that Mr. McIntyre serve as a member of a statewide advisory committee to that organization. On motion of Dr. Fisher, duly seconded, this request was approved.

INTERSPECIALTY COMMITTEE SUBCOMMITTEE REPORT

Dr. Stoneman was asked to give a report of the activities of the Subcommittee to the Interspecialty Committee regarding medical assistants. Dr. Stoneman indicated that Dr. Gulick, Chairman, called a meeting of the Subcommittee, consisting of Dr. Gulick, Dr. George Hawkins and Dr. Stoneman in St. Louis on January 3, to try to implement the study of medical assistants development proposal and present specific recommendations. The original resolution submitted to the MSMA regarding these assistants was reviewed, along with the work of the Ad Hoc Committee chaired by Dr. Edwards. The Subcommittee felt that two items were missing: (1) The reaction of the medical practitioners in Missouri and (2) the reaction of the schools and institutions in this country who have already instituted programs of this nature. Dr. Stoneman indicated that the Subcommittee has carried out a mailing to the schools and institutions who presently have such a training program, asking 12 specific questions regarding the program. He stated that it is too soon to tell what the evaluation of that survey will be.

Dr. Stoneman then gave a brief description and rundown of the questionnaire the Subcommittee proposes to send to all members of the MSMA to secure information regarding the desire of physicians for specially-trained medical assistants and the training needs of such assistants. Dr. Stoneman felt that there would be a 30%-40% response from the first mailing and a second mailing might be needed. The approximate total cost for the two mailings and tabulations would be about $1,600. It was suggested that a part of the funding possibly could be secured through the MRMP. After much discussion, it was moved and seconded that the Council approve circularizing this questionnaire with two amendments and the budgeting, but refer the matter to the House of Delegates for further action. Motion carried. It was suggested that copies of the questionnaire be made available to the reference committee discussing it.

Dr. Stoneman asked for permission to make this questionnaire available to the Illinois State Medical Society for their use, if they so desire, and to the Missouri Association of Osteopathic Physicians and Surgeons. It was moved, seconded, and passed that this permission be granted.

Dr. Miller commended Dr. Stoneman and the Committee for their excellent work regarding the medical assistants program.

HIMLER REPORT

■ Dr. Miller asked Dr. Benoit to give a report of the MSMA "Himler Report" Study Committee, which was charged with the responsibility of reviewing the AMA "Himler Report" and making specific recommendations regarding it. Dr. Benoit reviewed each of the recommendations contained in the "Himler Report," indicating his committee's recommendations regarding them. The following changes were made in the committee's report:

Premise 5: It was moved, seconded and passed that the "Himler Report" be amended by striking Recom-

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mendation 4 under Premise 5 and substituting, therefore, as a substitute item 4, "The Committee emphasizes that the provision of health services in rural areas and in poverty zones *must not* be abandoned to the government by default."

Premise 16: Line 5—That the word "be" be inserted between the words "resumé" and "prepared." The Council moved, seconded and passed that an eighth point be included under Premise 16, to read as follows: "(8) PL89-239 merits the continued interest of the Association and the constituent and component medical societies."

It was moved, seconded and passed that the Report of the MSMA "Himler Report" Study Committee be approved as presented with the above-mentioned amendments. The complete report of the MSMA "Himler Report" Study Committee, along with the complete Report of the AMA Committee on Planning and Development (Himler Report), will appear in the MSMA Delegate's Handbook.—**Referred to Reference Committee "H."]**

AD HOC PEER REVIEW COMMITTEE REPORT

■ Dr. Froelich, Chairman of the Council-appointed Ad Hoc Peer Review Committee, gave the following report: The Council Ad Hoc Peer Review Committee meeting scheduled in Jefferson City on January 18 was cancelled because of snow, but it met by means of a conference telephone call the evening of Jan. 23, 1970. Your Committee submits this report with apology for its failure to present completed committee detail with the hope you will accept the incomplete report. The Committee discussed the present peer review mechanism in the Missouri Title XIX Medicaid Program as conducted by the specialty groups which are members of the MSMA Medical Economics Contract Committee. A brief review of present practices brought out multiple deficiencies in methodology. Criticism of the one on one review procedure was universal. Members voiced opinion of lack of staff personnel to assist in finding details of fees and care prior to submission for review. The absence of the reviewed physician for hearing in the review process was condemned. The deficiency of any true peer review (other than by computer or nonmedical personnel) for Medicare Title XVIII cases of those physicians in the Eastern portion of the state was pointed out; whereas efficient peer review has been carried out in Western Missouri for Title XVIII and other third party intermediaries. Absence of similar or uniform procedure by various specialty groups was mentioned. Failure to notify physicians of their appointment to review committees and to orient them properly and the failure of some physicians to respond when asked to do so was brought out. It soon became apparent that total restructuring of the peer review mechanism was indicated. The following is recommended as a general outline of principles to be encompassed in MSMA Peer Review:

1. Peer Review concern itself with:
   a. Fees charged using UCR as a guideline
   b. Quality of medical care
   c. Appropriateness of care
      (1) Utilization
      (2) Treatment modalities employed
2. Assign responsibility for Medicaid peer review cases to an appropriate number of committees, geographically situated, composed of representatives of specialty groups whose names are submitted to MSMA by their parent specialty organization. It is recommended that committee members be reimbursed on a per diem and mileage basis. Each committee should have available the assistance of sufficient staff personnel to present detailed data on questionable cases to committee members and the physician involved prior to the meeting. The involved physician should have opportunity to be heard by committee prior to any derogatory action.

At this point, Dr. Froelich stated that this concluded the Ad Hoc Peer Review Committee Report, but he said that he would like to make a few personal comments regarding these regional committees, as follows:

1. Proportional representation of specialty members of geographic area served.
2. Five member committee and five alternates. Five members meeting each review period, probably monthly. Chairman to be elected by the regional committee.
3. No committee member should be more than one hour distant from committee meeting location.
4. Encompass appeal mechanisms for the patient, doctor and committee.
5. Regions established on basis of physician-geographic distribution.
6. Regional Committee have access to specialty group appointed members for consultation.
7. Osteopathic integration with Peer Review Committee.

Dr. Benoit indicated that he did not feel that regional committees composed of 10% of a certain specialty could be considered adequate peer review. Dr. Miller stated that he felt that something definite had to be done, because what we are now doing is not working. He indicated that he personally would like to see regional committees doing peer review. Dr. Max indicated that he felt the present OB-GYN peer review system is working well.

Motion was made and seconded that the verbal report of the Ad Hoc Peer Review Committee be accepted and instruct staff to write this up in suitable form with any additions, to be presented to the Interspecialty Committee for their consideration of (1) the type of peer review in which we should indulge; (2) the staff mechanism necessary to implement their decision; and (3) that this Council look into various areas of funding, possibly Regional Medical Program, Blue Cross, Blue Shield, Division of Welfare and other interested facilities. The motion carried. Dr. Kerr suggested that Dr. Miller and other interested parties be present for the Interspecialty Committee meeting at the time this subject is considered.—**Referred to Reference Committee on Resolutions.]**

CONSTITUTION AND BY-LAWS COMMITTEE REPORT

■ In the absence of Dr. Kenneth Hollweg, Chairman of the Committee on Constitution and By-Laws, Dr. Miller gave the report of the Committee regarding proposed changes in Chapter VII of the By-Laws of MSMA. These proposed changes in the Committee structure of MSMA were prepared by the Constitution and By-Laws Committee at the request of the Council. The changes were prepared in line with recommendations of the Special Committee on Long-Range Planning. Discussion followed regarding the proposed changes and several amendments were presented. These amendments are as follows:

On page 2, under "Committee on *Publication,*" line 6, delete the words "consisting of members of the Association." The sentence would then read, "The Editor shall be empowered to nominate an Editorial Board, subject to approval by the Council."

Page 3, prior to Section 2, add a new standing committee, "Committee on Voluntary Health Agencies," and a paragraph regarding appointment of five members of the Association to this Committee by the President, with the same tenure of membership as the other committees, along with duties to be carried out by this Committee. These duties are to include liaison with the Missouri Division of the American Cancer Society, Tuberculosis Association, Nurses' Association and all other allied health fields; responsibility of keeping tabs on comprehensive health planning in the State of Missouri; etc. Staff is to write up this portion of the By-Law change to reflect the above.

Motion was made, seconded and passed that the proposed changes recommended by the Committee on Constitution and By-Laws, along with the Council amendments be approved. Motion carried. A copy of the proposed By-Law changes as amended, along with a copy of the present Constitution and By-Laws will appear in the Delegate's Handbook.—**Referred to Reference Committee on Constitution and By-Laws.]**

MEDICAL-LEGAL COMMITTEE REPORT

■ In the absence of Dr. Daniel Yancey, Chairman of the Medical-Legal Committee, Mr. Cooper of the MSMA staff gave a brief resumé of the meeting of the Medical-Legal Committee held on January 25. He indicated that the Committee does not recommend that the MSMA adopt a pretrial screening panel for professional liability at this time and proposes to study further the problem of malpractice in Missouri. He further indicated that the Committee plans further study on the possibility of MSMA-sponsorship of professional liability insurance and said that this will be made the subject of a later report. The motion was made, seconded and passed to accept the report of the Medical-Legal Committee.—**Referred to Reference Committee on Miscellaneous Affairs.]**

DELEGATE'S HANDBOOK MATERIAL

Mr. McIntyre gave a brief run-down of items which would be included in the Delegate's Handbook. These items are the minutes of this Council meeting; financial statement; County Society resolutions; MSMF report; "Himler Report," along with MSMA "Himler Study Committee Report"; and Constitution and By-Laws Committee Report.

Dr. Max asked the Council to send in any suggestions they might have for appointments to the Reference Committees. Dr. Max stated that resolutions could be presented on the floor of the House, but he would like to have as many as possible appear in the Handbook. He said that in order for them to appear in the Handbook, the resolutions need to be in the Association Office by Monday, February 9.

Dr. Fisher also asked for suggestions of physicians to serve on standing committees and stressed that these be physicians who are interested and can get away from their practice to attend meetings. He further indicated that when sending names, please indicate the man's field and in what area he would be interested.

■ Dr. William Mayer distributed copies of a letter he had just received from Mr. Carter, Division of Welfare, regarding teaching hospitals' participation in the Missouri Title XIX Program. A portion of the letter indicated that "Effective Feb. 1, 1970, each participating physician must personally sign all claims submitted by him for Title XIX patients whether the patient be over age 65 or under age 65. The physician, in signing the claim form, guarantees the Division of Welfare that the service claimed was personally provided by him. There is no provision for payment for supervisory work done by such physician. The signature must be the actual signature of the physician and cannot be a stamped signature or the physician's name signed by any other person." Dr. Mayer voiced his concern about the potential implications of these requirements and indicated he wanted the Council to be aware of this.—**Referred to Reference Committee on Resolutions.]**

NEXT COUNCIL MEETING

Mr. McIntyre said that the next meeting of the Council will be held on Wednesday evening, April 1, at the Muehlebach Hotel in Kansas City prior to the opening of the Annual Session on April 2. He stated that the Council meeting following the Annual MSMA Session usually is held in May or June and three dates had been selected—May 16-17, May 23-24 and June 6-7. All three dates are being tentatively held at the Downtown Holiday Inn in Jefferson City. It was moved and seconded that the Council meeting would be held on May 16-17. The motion carried. (Since the Council meeting on January 30-31, the dates of the May Council meeting have been changed. The Council meeting following the Annual Session will be held on May 23-24.) The meeting adjourned at 12:05 P.M.

Council Supplementary Report

Dr. Miller then presented a supplementary report on the Council meeting on Wednesday evening, April 1, 1970 prior to the opening of the Annual Session. He reported as follows:

"The Chairman requested approval of the minutes of the previous Council meeting of January 30-31. Dr. McAlhany of Greene County called attention to Paragraph 6, Page 4 of the Council minutes which are included in the Delegates Handbook, stating that this item was given for information only and pertained strictly to Greene County and did not need to be referred to a reference committee. After discussion it was agreed, on motion, duly seconded, that this item be deleted and not be referred to the Reference Committee on Miscellaneous Affairs. Motion carried.

"After discussion, the minutes of the Council meeting of January 30-31 were approved as amended.

"Mr. McIntyre called attention to a resolution which was passed by the Pharmaceutical Association supporting a new medical school in Kansas City and which was distributed to the Governor, Missouri legislators and other influential groups.

(The Speaker referred this portion of the report to the Reference Committee on Reports of Officers.)

"Mr. McIntyre reported that a letter had been received requesting the appointment or reappointment of an official representative to the liaison committee to the Missouri Regional Medical Program. This committee is composed of representatives from voluntary health organizations in the state. He stated that Dr. Byron Stuart has been our representative on this committee and has attended all of the meetings. After discussion, on motion of Dr. Gunn, duly seconded, it was agreed to reappoint Dr. Byron Stuart to this liaison committee and to request him to report to the Council periodically.

(The Speaker referred this portion of the report to the Reference Committee on Miscellaneous Affairs.)

"Mr. McIntyre reported that a proposed new law in the state of Missouri would require nursing home administrators to be licensed in the state of Missouri after July 1, 1970, if such homes are to participate under Title XIX Programs.

"After discussion and on motion of Dr. Hansbrough, it was agreed that the Association support legislation placing such licensure of said administrators under the State Board of Health.

(The Speaker referred this portion of the report to the Reference Committee on Miscellaneous Affairs.)

"Mr. McIntyre reported that following communications between AMA and MSMA, a formal invitation for the AMA interim session to be held in St. Louis in 1972 has been extended.

"Dr. Miller then called attention to a Resolution regarding Missouri Temporary Licensure of Non-Citizen Physicians which was tabled at the January 30-31 Council meeting. On motion of Dr. Gunn, duly seconded, it was agreed to take this resolution off the table for reconsideration.

"Dr. Gunn, one of the proponents of the original tabled resolution, then proposed and distributed a modified version of this resolution to be in lieu of the tabled resolution.

"Dr. McCraw reviewed the meeting of the Executive Committee of MSMA with the State Board of Registration of the Healing Arts in St. Louis on March 8, at which a discussion of this entire situation was held. Drs. Kerr, Franklin and Gunn pointed out the need of temporary licensure for non-citizen foreign medical graduates who would be willing to work in specified community hospitals and particularly in the St. Louis area where their services are badly needed. It is implied that the physicians would be under proper supervision and direction of the administrators and staffs of said hospitals.

"A general discussion of the entire temporary licensure matter followed. The accepted substitute resolution proposed by Dr. Gunn relating to the temporary licensure of foreign medical graduates on motion was not approved for submission to the House of Delegates.

"After further discussion, on motion of Dr. Matthews, duly seconded, it was agreed that the entire problem of licensure be reexamined in the light of whether or not the qualified citizenship requirement be germaine to licensure and whether or not a more specific broad-based examination might not be developed and included in the law so that we might have qualified foreign medical school graduates practicing in the state of Missouri.

"Dr. Cope then presented the following Resolution:

> Whereas, Many of our hospitals now depend on the services of foreign medical graduates; be it
>
> *Resolved*, That pending the Resolution of the problem concerning medical licensure of non-citizens and foreign graduates, that all hospitals in the state of Missouri now employing foreign medical graduates be allowed to continue such employment in the same manner and in the same capacity as of this date, April 1, 1970.

"On motion, duly seconded, this Resolution was approved.

(The Speaker referred this portion of the report to the Reference Committee on Medical Education and Public Welfare.)

"Mr. Carroll reported that at the direction of the 1968 House of Delegates, the MSMA staff was instructed to seek a breakdown on the way both Medicare and Medicaid money is spent in Missouri. His report is as follows:

" 'At the 1968 Annual Meeting, Delegates to the Missouri State Medical Association House passed a resolution instructing the executive staff to seek a breakdown on the way both Medicare and Medicaid money is spent in Missouri—how much went to hospitals, how much to nursing homes, how much to physicians, how much for drugs, etc.

" 'Since that time, the staff has been actively seeking such information and its publication with some success as far as the Medicaid program is concerned, but without success regarding Medicare.

" 'Proctor Carter of the Missouri Division of Welfare has been most cooperative and has made available figures concerning a breakdown of Medicaid spending to us as well as to the news media. Figures for the program up to and including February, 1969, were published in Missouri Medicine last May. New figures concerning operation of the program since that time are due soon. Last July, figures were released to the news media showing a breakdown on the cost of the program for 1968 on an itemized basis. It received some press coverage.

" 'The figures released in July for 1968 showed that of $39.2 million spent on Medicaid, approximately $9.3 million went to hospitals, $9.2 million to nursing homes, $7.1 million to physicians, $6.4 million for drugs, $1.5 million to dentists, $2.4 million to Mental and Tuberculosis Hospitals, $400,000 for Administration and payments of Federal Medicare Insurance premiums for elderly welfare recipients of $2.9 million.

" 'Medicare has been a different story. Contact has been made on a number of occasions with the Blues, with General American Life Insurance Co. and the Social Security office in Kansas City and the National Office in Baltimore.

" 'Just last week, Mr. Newman H. Walker, Assistant Regional Representative for Health Insurance, Social Security Administration, Kansas City, was in our Jefferson City office and discussed the subject with Mr. McIntyre and myself. He reported that the Social Security Health Insurance office in Baltimore had told the Kansas City office that a breakdown on Medicare spending may be available in the near future.

" 'We also have had recent correspondence on the matter of Medicare spending breakdown with both Blue Shield at Kansas City and General American of St.

Louis, both Part B intermediaries, as well as with Blue Cross Part A carriers.

" 'Mr. Tom Collins of Kansas City Blue Shield reported that he had received a phone call from SSA Regional Office reporting that the Baltimore Office is working on this kind of statistical information and had assured him they will send it to him as soon as it is completed, at which time he assured me he will send it on to us. The estimated time, according to Mr. Collins, is three to four months hence.

" 'Earlier, Mr. Collins had told me that since Blue Shield was limited in maintenance of statistics to those which are directly necessary in the program, that they did not have such information as we sought and that gathering such information would be costly.

" 'General American, in a communication from Michael P. Ingrassia, reported that they are not able to supply the information we request. He continued, "It seems that our computer system at the present time is not capable of making a breakdown of Part B payment between physician services and other ancillary services. However, due to IRS requirements this information may be available on 1970 spending. Therefore, hopefully, we will have more information on the breakdown for you next year.

" 'The staff will continue to seek all the information asked in the MSMA resolution.' "

"On motion by Dr. Franklin, duly seconded, it was agreed that this report should be included in the Supplemental Report of the Council to the House of Delegates. The motion carried.

(The Speaker referred this portion of the report to the Committee on Resolutions.)

"Mr. Noble gave a brief rundown on the State Board of Optometry versus Curteman and the MSMA law suit to date, stating that an appeal had been filed and some decision may be forthcoming, possibly in April or September or possibly not until 1971. Mr. Noble explained that once it is set on the docket, briefs have to be prepared some 30 days before the case is referred for hearing.

"After discussion, it was agreed on motion, duly seconded, that legal counsel continue negotiations in this case.

(The Speaker referred this portion of the report to the Reference Committee on Medical Education.)

"Dr. Finnegan, editor of Missouri Medicine, recommended that the present Publication Committee of Missouri Medicine be reappointed for another year. He stated the function of the Publication Committee is to establish the general principles of the operation of the Journal, such as advertising policy, etc. On motion of Dr. Gunn, duly seconded, it was agreed that the present Publication Committee be reappointed for another year.

"Dr. Finnegan also mentioned the duties of the Editorial Board, which is to help select manuscripts and articles for publication in the Journal. Dr. Finnegan recommended the appointment of the Editorial Board with one new appointee, William Hart, M.D., of Columbia.

"On motion, duly seconded, these recommendations were approved. Also on motion, duly seconded, Dr. Finnegan's report was approved as a whole.

(The Speaker referred this portion of the report to the Reference Committee on Reports of Officers.)

"Dr. Fisher called attention to the Council-amended and -approved report of the Committee on Constitution and By-Laws which is contained in the Delegates Handbook, and to avoid possible overlapping of responsibilities of commissions and committees, the following changes are proposed:

"On Page 2, Section 2 of the report in the Handbook, the wording on the Commission on Third Party and Governmental Relations has been changed to include Medical Economics, so that this should now read, 'Commission on Medical Economics, Third Party and Governmental Relations.'

"Dr. Fisher presented an amended Page 3 of the Constitution and By-Laws report, stating that the second paragraph encompasses the change on Page 2, Section 2 of the report.

"After discussion, on motion of Dr. Gunn, duly seconded, the amended Page 3 was approved in lieu of the Page 3 now included in the Handbook. Copies of this amended Page 3 have been distributed to the Delegates to be placed in their Handbook.

(The Speaker referred this portion of the report to the Reference Committee on Constitution and By-Laws.)

"Mr. Speaker, that concludes the report."

On motion, duly seconded, the report was accepted.

Introduction of New Business

The Speaker announced the reference committees which were charged with considering various subjects

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within the Council's supplementary report and, also, noted the reference committee assignments for additional matters in the Delegates' Handbook.

Dr. McCraw named the following members of the Commitee on Nominations: Drs. William Jost, Charles Lewellen, Joe Edwards, Miles Whitener, Hugh Stephenson, Don Giesler, Robert Forsythe, Kenneth Glover (Chairman), Ray Froelich and Melvin Kasten.

The Speaker invited the introduction of new business.

The Speakers noted that the Committee on Rural Medical Services had submitted Resolutions #1, #2, #3 and #4 to the Council and their introduction from the floor was not required.

Dr. Ben Jolly introduced a resolution from the Audrain County Medical Society.

Resolution #5—To End Endorsement of Blue Cross and Blue Shield

Whereas, Blue Cross and Blue Shield are organized on a basis of special legislative action contrary to private enterprise insurance companies and do not answer to the State Board of Insurance; and,

Whereas, These special features allow Blue Cross and Blue Shield to enjoy financial advantages not available to other insurance companies operating under the private enterprise system; therefore,

Be It Resolved, That the Missouri State Medical Association cease endorsing the Blue Cross and Blue Shield programs as the Blue programs are in competition with private enterprise companies and, on such a competitive basis, should be able to stand on their own merits.

(Referred to Reference Committee on Resolutions.)

Dr. Wilson J. Ferguson introduced a resolution from Semo County Medical Society.

Resolution #6—Proposed Physician Licensure Law Change

Whereas, There is an acute shortage of physicians in many sections of Missouri; and

Whereas, It has been impossible for well-trained physicians who meet all of the licensure requirements of the state except for citizenship, to secure a regular license; and

Whereas, The majority of states in the United States with this licensure situation have acted upon it; and

Whereas, It is not the intent to change in any way the level of licensure;

Be It Resolved, That the Missouri State Medical Association goes on record requesting medical licensure for physicians be changed to read "a declaration of intent of citizenship," rather than full citizenship requirements, as noted in Section 334.031 of the Missouri Physicians and Surgeons Law.

(Referred to Reference Committee on Medical Education and Public Welfare.)

A Delegate from Ozarks Medical Society introduced the following three resolutions:

Resolution #7—Audit of Medicare-Medicaid Costs

Whereas, The medical profession is being politically discredited as selfishly enriching itself on governmental health funds out of proportion to services rendered; and

Whereas, This distortion depreciates the public image of the medical profession, lessening its ability to make its opinion heard in the formulation of health plans; and

Whereas, The medical profession's appraisal of health care plans should be of vital importance to the public which is the voting authority in establishment of such plans, as well as the ultimate supporter of and recipient of services of the health care plans; therefore be it

Resolved, That the Missouri State Medical Association ascertains by audit for a period of at least one recent year the cost of the Medicare-Medicaid Plans with itemization into administrative cost, physicians' fees, hospital payments, drug costs etc.; and be it further

Resolved, That the Missouri State Medical Association brings these figures and their interpretation to the public for its consideration; and be it further

Resolved, That the Missouri State Medical Association appropriates $25,000.00 for this work.

(Referred to Reference Committee on Resolutions.)

Resolution #8—Promoting Private Medical Care System

Whereas, The American Medical Association is failing to convey the positive reasons for our private system of medical care to the public; and

Whereas, The socialist element in this country is now proposing legislation for compulsory national health insurance and the complete changing of the system of delivery of health care; be it therefore

Resolved, That the Missouri State Medical Association urges the American Medical Association to set up a program to promote our present medical care system, this program to be directed to the public and not the physicians; this program to include a truth squad to shadow and to correct improper and incorrect statements in the news media; this program to be funded by $100,000.00.

(Referred to Reference Committee on Reports of Officers.)

Resolution #9—Study of Health Care Needs and Solutions

Whereas, It is stated that many people in the state of Missouri are not able to obtain adequate health care; be it therefore

Resolved, That the Missouri State Medical Association documents those in Missouri who cannot obtain proper health care and then proposes a solution to the problem.

(Referred to Reference Committee on Reports of Officers.)

Dr. Hugh Stephenson introduced a resolution from Boone County Medical Society.

Resolution #10—Full Membership for Osteopathic Physicians

Whereas, There is a need to bring the working relationship of medical and osteopathic physicians closer together so as to upgrade the standards of patient care; and

Whereas, There is a need to present a more united front to those outside the profession who would seek to further socialize and generally undermine the present system under which a patient has a free choice of a physician; be it therefore

Resolved, That the Missouri State Medical Association amends its by-laws to allow both state and local societies to accept for full membership osteopathic physicians who are licensed to practice medicine in Missouri either by examination or reciprocity.

(Referred to Reference Committee on Constitution and By-Laws.)

The Speaker announced that Clay County Medical Society had withdrawn Resolution #11.

A Delegate from Clay County Medical Society introduced the following resolution:

Resolution #12—Extended Care Claim Rejections

Whereas, Certain groups of United States citizens have been promised extended medical care after a hospital illness through provisions of the Medicare (Title XVIII) and Medicaid (Title XIX) laws; and

Whereas, The criteria for eligibility for extended care centers around need for skilled nursing care; and

Whereas, Skilled nursing care has not adequately been defined; and

Whereas, The practicing physician is in the best position to determine need for extended care; and

Whereas, Practicing doctors have been required to certify the need for such care for their patients; and

Whereas, Practicing doctors have furthermore been required to serve on committees reviewing utilization of such care; and

Whereas, The fiscal intermediary, acting as an agent of the Social Security Administration has, in many instances, overridden physician certification and utilization review committee approval, and denied payment of claims; and

Whereas, Such denial of payment has been deceiving to the patient, derogatory to the certifying doctor and financially ruinous to the extended care facility providing the service; therefore be it

Resolved, That the Missouri State Medical Association goes on record as condemning the capricious and arbitrary methods by which the Social Security Administration and its fiscal intermediary have denied physician-certified claims for extended care; and be it further

Resolved, By the Missouri State Medical Association to make every effort, through its individual members and organizational structure to inform the public of the facts regarding denial of extended care claims, so that the onus might be removed from the physician and more correctly placed with those agencies administering the Medicare Law.

(Referred to Reference Committee on Resolutions.)

A Delegate from St. Louis Medical Society introduced the following resolution:

Resolution #13—New Member Indoctrination

Whereas, There has been no formalized procedure for interesting the young physician in organized medicine in this state; and

Whereas, It is essential to the continuing function of our state and local societies that new young members become interested in the affairs of Medicine; and

Whereas, It has been notable over the past years that there has been some difficulty in interesting young M.D.'s in joining the ranks of organized Medicine; therefore be it

Resolved, That a portion of each annual meeting be devoted to the indoctrination of new members in the whole scope of Medical Society activities, in the benefits derived from membership and in some of the essentials of the practice of medicine; and be it further

Resolved, That a new member be required, as part of his membership requirement, to attend the MSMA annual meeting and be registered for this informative session within two years of starting his practice and/or membership; and be it further

Resolved, That wide publicity be given to this informative session to all medical students, interns and residents in the area of the annual meeting and that they be urged to attend.

(Referred to Reference Committee on Constitution and By-Laws.)

A Delegate from St. Louis Medical Society introduced the following resolution:

Resolution #14—Membership Privileges and Responsibilities

Whereas, Organized medicine through its conclaves and journals disseminate information for the betterment of health care to the community and betterment of the physician so involved; and

Whereas, Physicians by being affiliated with organized medicine show their true professionalism by subjugating themselves to peer review through the ethics, grievance and censors committees; and

Whereas, Many physicians use our facilities of meetings and journals to promote themselves without submitting themselves to the standards of true professionalism; therefore be it

Resolved, That a physician who is not affiliated with organized medicine not be permitted to appear on our programs or publish in our Journals. Extenuating circumstances, such as being from another country where he is affiliated with his own professional organization or because of his status as a student or house officer he has as yet not joined with organized medicine, would be considered exceptions. Exceptions shall be determined by the Council of the MSMA.

(Referred to Reference Committee on Constitution and By-Laws.)

A Delegate from St. Louis Medical Society introduced the following resolution:

Resolution #15—Medical Licensure Law Changes

Whereas, The statutes of the state of Missouri regulating the State Board of Registration for the Healing Arts makes United States Citizenship mandatory before an applicant can become eligible for examination or licensure; and

Whereas, It is obvious that citizenship per se has nothing to do with the competence of a physician; and

Whereas, This regulation has caused a high percentage of truly competent foreign medical graduates who have trained in United States-approved medical colleges, as well as those in other English speaking countries and Western Europe where medical education is comparable to that in our Class A schools, to bypass our state completely, and because of this our Missouri citizens are denied the opportunity to have more high quality medical care available, and because of the many problems, both real and imagined, which surround the privilege of temporary licensure as it now is granted by the State Board of Registration for the Healing Arts; therefore be it

Resolved, That,

1. United States citizenship be no longer required to obtain a license from the State Board of Registration for the Healing Arts to practice medicine and surgery in the state of Missouri.

2. That any person who can demonstrate to the satisfaction of the State Board of Registration for the Healing Arts that he has completed a course of academic endeavor comparable to that obtainable in an approved United States Medical College may be permitted to take their examination for licensure. In the case of a foreign medical graduate, he should have at least one year of training in an AMA approved internship or residency before taking this examination. The reason for this being to make certain the applicant is familiar with our language and modes of diagnosis and treatment.

3. That temporary licensure may still be granted at the discretion of the State Board of Registration for the Healing Arts, but at no time for an individual to work with such a license except in an approved internship or residency program. The most likely reason for such a license being started in to fulfill the requirements as set forth in paragraph No. 2.

4. That examination when given by the SBRHA be sufficiently comprehensive to adequately assess the true ability of the applicant.

5. That the MSMA direct our council to draft legislation setting forth the above ideas and have it submitted to the Missouri Legislature for appropriate action.

(Referred to Reference Committee on Medical Education and Public Welfare.)

A Delegate from St. Louis Medical Society introduced the following resolution:

Resolution #16—HEW's Nullification of Utilization Review Committees

Whereas, The administrators of the Medicare Act and their third parties acting for HEW in this regard have seen fit to establish levels of medical care as interpreted by clerks, nurses and other non-qualified personnel; and

Whereas, This pernicious invasion into good practice of medicine is harmful to the sick; and

Whereas, Utilization Review Committees have been established in compliance to the Medicare Act; and

Whereas, The compliance to this section has been conscientiously carried out in spite of the increasing demands on the already overburdened medical profession; and

Whereas, The administrators of the Medicare Act and the insurance carrier in this area, Blue Cross, have seen fit to practice medicine in direct violation of not only the spirit but also the letter of the law as here quoted:

P.L. 89-97 (Medical Law) Section 1801

> "Nothing in this title shall be construed to authorize any Federal officer or employee to exercise any supervision or control over the practice of medicine or the manner in which medical services are provided or over selection, tenure or compensation of any officer or employee of any institution, agency or person providing health services; or to exercise any supervision or control over the administration or operation of any such institution, agency or person."

So therefore be it

Resolved, That the Department of Health, Education and Welfare by its action has in effect nullified Utilization Review Committees and should be so notified; be it further

Resolved, That the MSMA in convention assembled protests this unlawful invasion in medical practice; be it further

Resolved, That the delegates of the MSMA be instructed to present this resolution to the meeting of the House of Delegates of the AMA; be it further

Resolved, That the AMA appeal to the courts to stop this nefarious interpretation of the Medicare Act, in allowing clerks and nurses to interpret what shall constitute questions of Medical care.

(Referred to Reference Committee on Resolutions.)

Dr. Allen Klippel introduced a resolution from the Emergency Medical Service Committee of the St. Louis Medical Society and the St. Louis County Medical Society.

Resolution—Drunk Drivers' Test

Whereas, The death rate on our state highways is always on the increase; and

Whereas, A high percentage of drivers involved in automobile accidents have been drinking alcoholic beverages; and

Whereas, It is our duty as physicians to prevent as well as cure disease; now therefore be it

Resolved, That this convention of the MSMA go on record as urging that the State Legislature implement the existing driving regulations to include testing of the blood for the alcohol level, of all persons involved in automobile accidents or who are suspected of driving while under the influence of alcohol; and be it further

Resolved, That a person who has a blood alcohol level of .10 mg. of alcohol per 100 m.l. of blood be declared as drunk.

(Referred to Reference Committee on Miscellaneous Affairs.)

Dr. Andrew McCanse introduced a resolution from the Jackson County Medical Society.

Resolution—Tax Referendum

Whereas, The Missouri State Medical Association is vitally concerned about health needs of all residents of Missouri; and

Whereas, Constructive mental health programs of the Division of Mental Diseases are threatened by inadequate state funds; and

Whereas, Health care and financial assistance for the poor are similarly jeopardized through curtailment of funds to the Division of Welfare; and

Whereas, Expanded higher education programs of the University of Missouri, which include provisions for increasing the supply of physicians and nurses to the state, are also menaced by lack of state funds; and

Whereas, Members of the Missouri State Medical Association recognize the need for scrupulous responsibility both in the collection and expenditure of state tax money; and

Whereas, Members of the Missouri State Medical Association realize that assuming their own share of responsibility in the health needs of the state is an important factor in helping the general public to support state health programs; therefore,

Be It Resolved, That the Missouri State Medical Association be on record as favoring revision of the state income tax as voted in the last special legislative session; and

Be It Further Resolved, That the intent of this resolution be publicized appropriately so the voters of the state may be aware of the strong support of the Missouri State Medical Association for these vital state health programs.

(Referred to Reference Committee on Reports of Officers.)

Dr. Marshall Conrad submitted a resolution from the Joint Committee on Emergency Medical Service of the St. Louis and St. Louis County Medical Societies.

Resolution—Ambulance Service Regulations

Whereas, It has been clearly shown throughout the United States that proper rescue and transportation increases dramatically the chances for survival of those persons who have been injured on our highways; and

Whereas, Many of the local providers of ambulance service do not have the proper equipment or have not received the proper training in rescue work; and

Whereas, It is our duty as physicians of this state to be directly involved in the care of injured peoples; now be it

Resolved, That this convention of MSMA goes on record that the Missouri Public Service Commission be instructed to require that all ambulances operating within the borders of this state carry the minimum equipment for ambulances as suggested by the American College of Surgeons; and be it further

Resolved, That the attendants and drivers on all ambulances operating within this state be trained to meet the standards of the American Red Cross for an instructor's rating; and be it further

Resolved, That all physicians make themselves available to help the present ambulance operators comply with these regulations by instructing their personnel and demonstrating the proper use of the equipment.

(Referred to Reference Committee on Miscellaneous Affairs.)

Dr. Louis Hetlage submitted a resolution from the St. Charles-Lincoln County Medical Society.

Resolution—Utilization Review Committees

Whereas, The rules and regulations of Public Law 89-97 relating to the administration of the Medicare Act, requiring doctors to actively serve as members of Utilization Review Committees; and

Whereas, These committees have been actively and conscientiously functioning in all Medicare-approved hospitals in the State of Missouri; and

Whereas, Now the Medicare Intermediaries have chosen to submit certain cases to review, which have previously been approved by Utilization Committees; and

Whereas, This review, in certain regions, is being carried out by a board of nurses without representation by the medical profession; and

Whereas, These committees have examined claims and made decisions on the basis of history, physical, progress notes and orders without consideration of laboratory reports, x-ray reports, nurses notes or graphic notations; and

Whereas, In many instances durations of hospitalization have been rejected on the basis of the above information, despite Utilization Committee approval; then therefore be it,

Resolved, That the House of Delegates of the Missouri State Medical Association goes on record as favoring the establishment of a committee to review these policies with representatives of the Medicare and Medicaid Intermediaries and to encourage the addition of physicians to these review committees; and further be it,

Resolved, That if further information and cooperation is not forthcoming from the Medicare and Medicaid Intermediaries regarding the above matter, that all members of the Missouri State Medical Association be advised of their right to refuse service on Hospital Utilization Committees.

(Referred to Reference Committee on Resolutions.)

Dr. Hetlage introduced a second resolution from St. Charles-Lincoln County Medical Society.

Resolution—Interim Scientific Meeting

Whereas, There is a continuing need for increasingly current medical information; and

Whereas, The dissemination of this knowledge is accepted to be of more value when an exchange of ideas is possible; and

Whereas, This exchange is best implemented by forum discussion and panel presentation; and

Whereas, The annual meeting of the Missouri State Medical Association is limited by time and space for a widened scope of medical presentations; therefore be it

Resolved, That the House of Delegates of the Missouri State Medical Association goes on record as favoring the principle of an interim scientific meeting; and further be it

Resolved, That the administrative staff of the Missouri State Medical Association be instructed to develop a proposal for such a meeting to be presented either to the council for their approval, or to the next annual session of the House of Delegates for consideration at that time.

(Referred to Reference Committee on Reports of Officers.)

Dr. Carl M. Peterson introduced a resolution from Jackson County Medical Society.

Resolution—Diploma Nursing Education

Whereas, The Missouri State Medical Association supports all forms of nursing education, including baccalaureate, diploma, associate and practical nursing programs; and

Whereas, The Missouri State Medical Association acknowledges the merit of and need for the numerous diploma nursing programs in this state; and

Whereas, The Missouri State Medical Association is cognizant of a movement to de-emphasize this type of program; therefore,

Be It Resolved, That the Missouri State Medical Association takes all appropriate steps to encourage recruitment, development and expansion of diploma nursing programs.

(Referred to Reference Committee on Medical Education and Public Welfare.)

Dr. James Brown submitted a resolution from the Greene County Medical Society.

Resolution—Improper Decisions Against Part A Medical Patients by St. Louis Blue Cross

Whereas, Part A of the Medicare Law (Title XVIII and XIX, Public Law 89-97) was allegedly established to provide hospital and nursing care for elderly patients; and

Whereas, The law specifically states that the eligibility for Part A Medicare benefits will be determined primarily by the patient's attending physician and secondarily by a duly and legally constituted Utilization Review Committee at the patient's hospital; and

Whereas, Physicians in the state of Missouri, agreeing that the patient's physician and his immediate peers are in the best position to determine the need for hospitalization and nursing care, have cooperated with the Medicare Law and have worked vigorously to improve their own practice and through Utilization Committees the practice of their peers; and

Whereas, The St. Louis Blue Cross Fiscal Intermediary for Medicare Part A has preemptorily over-ridden the decisions of duly constituted Utilization Committees, has made decisions about patients in an unethical and unprofessional fashion, and has caused embarrassment and financial distress to patients and hospitals in the state of Missouri; and

Whereas, Elderly patients are often physically unable to appeal unsatisfactory decisions, and are denied judicial review unless over $1,000.00 is involved; now therefore be it

Resolved, That the Missouri State Medical Association condemns the St. Louis Blue Cross Intermediary for its over-riding of the Utilization Committee decisions; and be it further

Resolved, That the Missouri State Medical Association through its Committee on Economic and Medical and Legal Affairs shall meet with the Part A Fiscal Intermediary and with the official backing of the Society demand that decisions by the patient's physicians and the hospital's Utilization Committee be given the consideration specified in Public Law 89-97, and recognizing that there may still be disagreements; be it further

Resolved, That each counselor district shall have an Arbitration Committee available to help resolve disputes which may occasionally arise between the Fiscal Intermediary and a given Utilization Committee in that district. This Committee shall consist of at least five physicians plus any others needed for special occasions, all appointed by the District Counselor. The work of this Arbitration Committee is to consult with the Fiscal Intermediary and the Utilization Committee of the hospital in question in the event that substantial complaints of over-utilization are reported. The Fiscal Intermediary shall pay members per diem, mileage, and an hourly charge consistent with their professional status for their work. Conclusions of the Arbitration Committee shall be for information purposes of the Utilization Committees and the Fiscal Intermediary; and be it further

Resolved, That if the St. Louis Blue Cross Fiscal Intermediary does not comply with this resolution and continues to ignore the law and over-ride the duly authorized Utilization Committees of the hospitals, that the Missouri State Medical Association through its Committee on Economic and Medical and Legal Affairs, take whatever action is necessary to assure compliance with the law and to assure protection of patients and hospitals from peremptory and unilateral decisions.

(Referred to Reference Committee on Resolutions.)

A Delegate introduced a second resolution from Greene County Medical Society.

Resolution—Dispensing of Medicaid Funds

Whereas, The medical profession has received undue publicity relating to the costs of medical care under the Medicare and Medicaid program; and

Whereas, This information is a matter of public record and available at the Division of Welfare; now therefore be it

Resolved, That the Missouri State Medical Association staff be requested to obtain from the Division of Welfare all information regarding the disbursement of Medicaid funds; and be it further

Resolved, That this information be made available to the active membership of the Missouri State Medical Association.

(Referred to Reference Committee on Resolutions.)

Dr. Raymond Stockton introduced two resolutions recommended by Jackson County Medical Society as substitute resolutions for the previously-introduced Resolution #5.

The first resolution is as follows:

Resolution—Support of Blue Shield

Whereas, The Bylaws of the National Association of Blue Shield Plans require that each local plan be sponsored by a state or county medical society; and

Whereas, Missouri Medical Service (St. Louis Blue Shield) has been sponsored since its inception by the Missouri State Medical Association; and

Whereas, The Missouri State Medical Association represents the entire State of Missouri while Missouri Medical Service serves only a portion thereof; and

Whereas, It would seem appropriate to correct this discrepancy and to make Missouri Medical Service more responsive to the needs and desires of that portion of the state which it actually serves; therefore

Be It Resolved, That the Missouri State Medical Association terminates its sponsorship of Missouri Medical Service by September 1, 1970; and

Be It Further Resolved, That the Missouri State Medical Association encourages those county medical societies in the area actually served by Missouri Medical Service to assume such sponsorship.

(Referred to Reference Committee on Resolutions.)

Dr. Stockton then introduced the second substitute resolution for Resolution #5 from Jackson County Medical Society.

Resolution—State Premium Tax on Blue Cross and Blue Shield

Whereas, The Blue Cross and Blue Shield plans in Missouri are not-for-profit corporations, organized and operated for the benefit of the public and paying no interest, dividends, bonuses or profits to vested interests; and

Whereas, All income from Blue Cross and Blue Shield subscribers' dues, with the exception of a minimum amount for administrative overhead, is allocated for payment of benefits; and

Whereas, Blue Cross and Blue Shield in Missouri have unique records of guaranteeing protection which cannot be cancelled because of heavy utilization; and

Whereas, Blue Cross and Blue Shield are the only major hospital, medical and surgical prepayment plans in which all segments of society, consumers and providers, are represented at the policy making level; and

Whereas, The imposition of a state premium tax would inevitably result in increasing the cost of Blue Cross and Blue Shield operating expenses and, thereby, the cost of dues to Blue Cross and Blue Shield subscribers; therefore

Be It Resolved, That the Missouri State Medical Association actively oppose any effort to impose a state premium tax on the dues of Blue Cross and Blue Shield subscribers.

(Referred to Reference Committee on Resolutions.)

Dr. Herbert Warres submitted a resolution from Greene County Medical Society.

Resolution—Increased Use of Paramedical Personnel

Whereas, The determination of time of death has undergone re-examination in recent years, as electronic devices and other aids have been utilized within a modern hospital setting; and

Whereas, These tools in medical practice have by nature been monitored by trained hospital personnel, specifically the registered nurses and supervisors; and

Whereas, This constitutes increased utilization of trained paramedical personnel which is one means of delivering the best care possible to patients in a hospital; and

Whereas, It is the understanding of some physicians that the law of the State of Missouri only requires that morticians obtain a signed certificate to verify death has occurred; now therefore be it

Resolved, That the practice of viewing a body by a physician should be requested within the hospital when any reasonable doubt of death exists; and be it further

Resolved, That it otherwise serves no useful, productive purpose, and should be discontinued on a routine basis.

(Referred to Reference Committee on Medical Education and Public Welfare.)

Dr. Otey S. Jones submitted a resolution from St. Louis Medical Society regarding temporary licensure of foreign medical graduates.

Resolution—Temporary Licensure of Foreign Medical Graduates

Whereas, There is a critical shortage of doctors in the State of Missouri, and

Whereas, The Missouri State Medical Association is investigating ways and means of overcoming this shortage, such as creating assistant physicians or medical assistants; and

Whereas, There is a ready supply of foreign medical graduates already in the employ of many hospitals, especially in the St. Louis area, who are graduates of approved foreign medical schools, and many already having had training in the hospitals here and in Canada; and

Whereas, Many physicians, members of the MSMA in Metropolitan St. Louis and surrounding areas are strongly in favor of temporary licensure of properly qualified non-citizen medical school graduates to ameliorate this shortage; and

Whereas, The Laws of the State of Missouri empower the State Board of Registration for the Healing Arts, under chapter 334.045, to grant temporary licenses to foreign medical graduates in State-maintained hospitals, or other hospitals approved by the State Board under the supervision of the Superintendent or Chief of Staff of such institution; and

Whereas, There is a critical need for ancillary help in private voluntary hospitals which at this time, can only be provided in most respects by foreign medical graduates, and at the same time, help keep down the cost of medical care to the patient by the voluntary hospitals where the majority of health care is still being delivered;

Therefore Be It Resolved, That the House of Delegates of the Missouri State Medical Association requests the State Board of Registration for the Healing Arts to change its policy so that qualified non-citizen medical school graduates can obtain temporary licensure to serve in private voluntary hospitals, under proper supervision, approved and accredited by the Joint Commission of Accreditation of Hospitals, as well as state-, federal- and municipal-operated institutions and other hospitals with accredited training programs, provided, however, that no fees for services rendered shall be charged by the temporary licensee nor by the hospital where he is employed for services performed by such temporary licensee.

(Referred to Reference Committee on Medical Education and Public Welfare.)

Dr. G. L. Hawkins, Jr., introduced a resolution from St. Louis Medical Society concerning Missouri Medical Services Corporation.

Resolution—Missouri Medical Services Corporation

Whereas, The economic aspects of medical practice are of increasing importance to the practitioner, medicine to the consumer of medical services and to the governmental structures because of the necessary load of medical indigency which has been assumed by governmental agencies; and

Whereas, Practicing physicians have the greatest insight into the overall broad picture of economics of the total health care package; and

Whereas, Physicians are saddled with the responsibility in the public eye, although, in fact, they have no control of health care costs other than physician services; and

Whereas, Insurance coverage of medical care cost, inpatient, outpatient, hospital physician services and drug costs by agencies, governmental and non-governmental, are becoming more and more comprehensive in medical care costs; and

Whereas, The present functioning of medical care insurance into categories for hospital care and physician services as now constituted contributes to the increasing rise in the cost of medical care and contributes to the overutilization of hospital facilities; and

Whereas, The present trends of third party fractionated coverage in the increasing costs generated by this is leading the practice of medicine to a dilemma with one horn being the take-over by hospitals with the substitution of institutional medicine for the private practice of medicine; and

Whereas, Missouri State medicine has a sponsored organization, National Medical Service, which can be modified to assume the role of giving unitized third party coverage for total medical care; therefore be it

Resolved, That the practicing physicians of Missouri through the MSMA direct its sponsored organization, Missouri Medical Services, Inc., to provide total health care insurance to include out-patient, diagnostic and therapeutic services, drugs and other therapeutic and diagnostic agents, hospitalization costs and convalescent care costs with suitable economic features to promote the more economical performance of therapeutic and diagnostic studies on an outpatient level to provide for better utilization of existing hospital beds to lessen the rising costs of the total health care package and to free the practice of medicine from takeover by government or institutions.

(Referred to Reference Committee on Resolutions.)

Dr. Ed Wolfgram then introduced a resolution endorsed by the St. Louis Medical Society, the St. Louis County Medical Society and, also, the Missouri Psychiatric Association.

Resolution—Outpatient Medicaid Coverage of Patients With Emotional Problems

Whereas, Medicaid has been instituted to provide the patient with freedom to choose any physician participating in the Medicaid program; and

Whereas, Present Medicaid provisions cover for only two months of outpatient psychiatric care; and

Whereas, Many patients require the long-term combined care of a team of physicians, including psychiatrists; and

Whereas, The state hospital system is often geographically unavailable to the patient, and not within the usual realm of reference of the private practicing physician; and

Whereas, The present limitations on psychiatric care are discriminatory to patients with emotional problems; therefore be it

Resolved, That provisions be made under Medicaid for private outpatient psychiatric care. The extent of such care to be subject to the same limitations as would apply to patients under the care of any specialist.

(Referred to Reference Committee on Resolutions.)

Dr. Kenneth Bruns, St. Louis Medical Society, introduced a resolution concerning the Himler Report.

Resolution—Himler Report Resolution

Whereas, If the Medical Profession ceases to express an opinion on "the source of the payment," it then decreases its ability to guide the nation to proper delivery of medical care; and

Whereas, The American Medical Association has only the duty to "guide and assist" members at their request (The Society must be the servant of the members—not the reverse of this); and

Whereas, The World Health Organization definition of health adds "social well-being" to the real meaning of health and since most physicians are neither trained for nor temperamentally suited for social action; and

Whereas, The profession of medicine should not exercise control and initiative in fields outside its area of expertise; and

Whereas, The American Medical Association should under no circumstances operate or cause to be done a corporation for the delivery of health services; and

Whereas, The Association must take a stand against systems of delivery of health care which in any way interfere with the free choice of either the recipient or the provider of service; and

Whereas, The collection of data on physician's fees is already in existence on the computers of Medicare Intermediaries rendering such studies redundant; and

Whereas, Any attempt to modify fees should be designed to maintain them at proper levels and not as suggested merely to contain or lower them; and

Whereas, The Medical Societies should act as servants to their members not as "powers to serve some"; and

Whereas, The Medical Societies audit of both hospital and office medical care is an invasion of the privacy of both the patient and his physician; and

Whereas, The comparison of results of audits of practice reduce the profession of medicine to a tradesman's level of seeking a standard by which to compare each physician with his fellows; and

Whereas, Such a system would discourage any new or improved system because its very deviation from "accepted" norms would point out the innovator for investigation; and

Whereas, Physicians are the only persons in our society capable of providing health care and need not hesitate at all to use that fact to either threaten or actually destroy any program which obviously is working to the detriment of society at large; and

Whereas, The collection of data on health planning in each component society, correlation of that data and suggestions for changes are entirely redundant as medical society business and constitute a further, unnecessary expense and the delivery of unsolicited advice; and

Whereas, The formation and operation of the proposed "National Academy of the Health Professions for Research and Policy" is again a redundant organization with great expenditure of money and talent designed to deliver unwanted advice and, into the bargain, diluting our influence in its activities; therefore be it

Resolved, That the Missouri Medical Association recommends that the report of the Committee on Planning and Development be rejected in its entirety; and be it further

Resolved, That the American Medical Association appoints a new committee charged with study of this same area but staffed by physicians who are motivated in the direction of professional physicians as opposed to those who acquiesce to the advocates of deterioration of the status of professional and meddling in the affairs of all mankind.

(Referred to Reference Committee "H.")

Dr. Charles A. Jost of the St. Louis Medical Society introduced the following resolution:

Resolution—Re: AMA Committee on Planning and Development

Whereas, Medical services are an economic good and, as such, are subject to the economic law of supply and demand; and

Whereas, The normal function of the law of supply and demand will bring an automatic increase in the supply of medical services to meet the demand; and

Whereas, The normal function of the law of supply and demand has been disrupted by government interference in the form of government planning, government subsidies, government regulations and government coercion; and

Whereas, The supply of new physicians is further discouraged by the threat of continued and increasing government interference in the performance of medical services and by more and more restrictions of the personal and professional freedom of physicians; and

Whereas, The AMA (Hilmer) Committee on Planning and Development recommends more planned regimentation of physicians which will result in a decreased volume and quality of medical care; and

Whereas, The MSMA should do all it can to preserve the normal and natural stimuli of the law of supply and demand as contrasted to the bureaucratic regimentation that stifles the increase and improvement of medical care;

Therefore Be It Resolved, That the MSMA recommends to the Council of the AMA that the Committee on Planning and Development be thanked for its extensive efforts and that the Committee on permanent Long Range Planning and Development not be established; and be it further

Resolved, That the MSMA recommends that the AMA discontinue all planning and collaboration with the government agencies and devote all its efforts to the elimination of those plans, subsidies, coercive regulations and other impediments to the function of the law of supply and demand; and be it further

Resolved, That the AMA conduct an extensive program to inform the American people of the reasons for the disruption of the medical care in our Country and of the means by which we can give to America the best medical care in the world.

(Referred to Reference Committee "H.")

Dr. William Walker introduced the first of two resolutions from Greene County Medical Society.

Resolution—Population Control

Whereas, The problems of pollution of our environment are rapidly increasing toward catastrophic proportions; and

Whereas, These problems stem from the rapid growth of population; and

Whereas, Overpopulation in itself, by overcrowding through increasing urbanization, tends to degrade the quality of human life; and

Whereas, The basic means of lowering the population growth rate is through limiting births; therefore be it

Resolved, That the Missouri State Medical Association urges vigorous education of the public of the facts of population growth and its dire results and wide dissemination of information regarding all forms of birth control; and be it further

Resolved, That provision be made for the medically indigent, when they desire, to obtain birth control information and supplies under the welfare program, including sterilization when indicated; and be it further

Resolved, That a copy of this resolution be transmitted to the Governor and all members of the Legislature of the State of Missouri.

(Referred to Reference Committee on Miscellaneous Affairs.)

Dr. Walker submitted a second resolution from Greene County Medical Society.

Resolution—Abortion

Whereas, The American Medical Association's present policy on abortion is to permit the procedure only when there is documented clinical evidence that continuance of the pregnancy would threaten the health or life of the mother, or that one infant may be born with incapacitating physical deformity or mental deficiency, or that continuance of a pregnancy resulting from legally established statutory or forcible rape or incest may constitute a threat to the mental or physical health of the mother; now therefore be it

Resolved, That the Missouri State Medical Association affirms the action of the AMA.

Resolved, That a copy of this resolution be transmitted to the Governor and all members of the Legislature of the State of Missouri.

(Referred to Reference Committee on Miscellaneous Affairs.)

Dr. Joseph C. Edwards introduced a resolution on environmental pollution from the St. Louis Medical Society.

Resolution—Environmental Pollution

Whereas, The citizens of this country are spending $200 million on air pollution yearly and the cost of adverse pollution effects have been placed between $2 billion and $12 billion, and

Whereas, There is increased concern of the citizens regarding the health and environment of all living beings, and

Whereas, The President of the United States has given the correction of environmental pollution the highest priority, therefore be it

Resolved, That the MSMA Committee on Environmental Health and the Committee on Environmental Health of the St. Louis Medical Society be commended for their joint efforts of the last several years, and be it further

Resolved, That the MSMA, through its committee, assist state schools and youth organizations in designing courses of instruction concerning the environment and the effects of man made pollution, and be it further

Resolved, That the Council of the MSMA instruct its Environmental Health Committee to work toward a better environment for Missourians in cooperation with the federal, state and local governments of Missouri, and be it further

Resolved, That copies of this resolution with the address of the Environmental Health Committees, be sent to the President of the United States, to the Governor and legislative leaders of the State of Missouri and to the State Superintendent of Schools indicating the fact of MSMA's willingness and interest in cooperating in the field of Environmental Health education.

(Referred to Reference Committee on Medical Education and Public Welfare.)

Dr. Edwards introduced a second resolution from St. Louis Medical Society.

Drug Abuse Resolution

Whereas, The best way to deal with the problems of our youth experimenting and using dangerous drugs is to approach it from an educational standpoint; and

Whereas, The physicians of MSMA are best equipped to help counsel and advise the teaching profession and parents regarding the dangers of such drugs; therefore be it

Resolved, That the MSMA goes on record as approving the component societies to develop committees on drug abuse and to aid in dissemination of knowledge to the schools and PTAs and news media in order that this might have some effect in deterring the use of these drugs and encouraging a course of instruction to be given to the pupils at the proper grade level in order that they may desist from using these drugs or from being coerced into using them by either their peers or by drug pushers.

(Referred to Reference Committee on Medical Education and Public Welfare.)

Dr. Edwards introduced another resolution on drug abuse from St. Louis Medical Society.

Resolution—Drug Abuse

Whereas, It is common knowledge that many of our youth are experimenting with or using various drugs and some have become addicted to "hard" drugs; and

Whereas, Much of our crime is committed by people addicted to drugs; and

Whereas, There are bills before our Congress to shift the responsibility for the registration of the physician who prescribes medication from the Department of Health, Education and Welfare to the Attorney General who at his discretion may suspend any registration; and

Whereas, Your office or home may be searched "at any time of the day or night," any officer authorized "may without notice of his authority and purpose break through the outer or inner door or window of the building or anything therein." A magistrate issuing a search warrant believes you are not following certain of the Attorney General's regulations respecting "dangerous drugs" medications such as meprobamate, diazepam and chlordiazepoxide are classified as "dangerous drugs"; and

Whereas, The control and correction of drug abuse in this country can be better served by the system of education in our schools and among our people rather than shift the power over medical research and medical practice in this field to the Department of Justice from the Department of Health, Education and Welfare where it now rests; therefore be it

Resolved, That the Missouri State Medical Association goes on record as opposing the administration supported drug abuse bill as it now stands, and advises against the supervision by the Department of Justice of medical research and medical practice rather than by the Department of Health, Education and Welfare (or a separate Department of Health with Secretary of Cabinet rank); and be it further

Resolved, That the secretary of the MSMA be instructed to send a copy of this resolution to senators and representatives in the State of Missouri, the chairmen of the committees responsible for the bill, the President of the United States and the American Medical Association.

(Referred to Reference Committee on Medical Education and Public Welfare.)

Dr. William Macon, St. Louis Medical Society, introduced the following resolution:

Resolution—New Joint Commission for Accreditation of Hospitals Regulation on Abbreviations

Whereas, Medical education has accepted the use of abbreviations in recording medical information about patients for as long as formal training has been in effect; and

Whereas, Hospital medical record keeping is tedious and time consuming; and

Whereas, Each hospital medical records department understands the abbreviations of its staff members; therefore be it

Resolved, That the delegates to the Missouri State Medical House of Delegates register a strong protest with the Joint Commission for Accreditation of Hospitals against the new regulation that states, "No abbreviations may be used in final diagnoses."

(Referred to Reference Committee on Reports of Officers.)

Dr. Mary Merideth introduced the following resolution from Ozarks Medical Society:

Resolution—Membership for Osteopathic Physicians

Whereas, Certain individuals and county societies have repeatedly introduced resolutions in the MSMA House of Delegates favorable to accepting a few Osteopathic Physicians to full membership in the MSMA; and

Whereas, Since the action of the AMA House of Delegates in

December, 1968, there has been no general action by the AOA indicative of a desire on their part to become affiliated with either the AMA or its component societies; and

Whereas, There is no need to bring about a closer working relationship of medical and osteopathic physicians, except in a few isolated areas where politics have forced acceptance of osteopaths on tax-supported hospital staffs; nor has there been noted any instance wherein benefit has accrued to the medical profession from a lowering of the qualifications for membership in our societies; therefore

Be It Resolved, That the House of Delegates of MSMA reaffirms the stand of the AMA on this question and that associate membership *only* be offered to members of the osteopathic profession, and that *only*, in those areas where local politics necessitate their being accepted on hospital staffs.

(Referred to Reference Committee on Constitution and Bylaws.)

Dr. Dallas Anthony introduced a resolution from Greene County Medical Society.

Resolution—Chiropractic

Whereas, The Missouri State Medical Association House of Delegates adopted a resolution at the 111th Annual Session which read "*Resolved*, that the Missouri State Medical Association formally adopts the American Medical Association policy statement on Chiropractic"; and

Whereas, Chiropractic continues to make inroads through state and national legislation to increase their scope of medical practice; and

Whereas, It is a responsibility of the medical profession as stated in Section 4 of the Principles of Medical Ethics, "The medical profession should safeguard the public and itself against practitioners deficient in moral character or professional competence"; and

Whereas, The United States Department of Health, Education and Welfare has stated that chiropractic theory and practice are not based upon the body of basic knowledge related to health, disease and health care that has been widely accepted by the scientific community. Moreover, irrespective of this theory, the scope and quality of chiropractic education do not prepare the practitioner to make an adequate diagnosis and provide appropriate treatment. Therefore, it is recommended that chiropractic not be covered in the Medicare program; now therefore be it

Resolved, That the Missouri State Medical Association reaffirms the action taken at the 111th Annual Session; and be it further

Resolved, That the Missouri State Medical Association uses all means at its disposal to alert the general public to the health hazard posed by the cult of chiropractic; and be it further

Resolved, That the Missouri State Medical Association, through its appropriate committee, advises and informs all members of the State Assembly to the health hazard posed by the cult of chiropractic, and that copies of the book, "AT YOUR OWN RISK," by Ralph L. Smith be sent to each member of the State Assembly.

(Referred to Reference Committee on Medical Education and Public Welfare.)

Dr. Robert Kelley introduced two related resolutions regarding licensure of foreign medical graduates from the St. Louis and St. Louis County Medical Societies. The first resolution is as follows:

Resolution—Licensure of Foreign Graduates

The problem regarding the use of Foreign Medical Graduates in Missouri hospitals deserves two approaches. The first concerns the immediate crisis faced by many private hospitals with regard to the shortage of professional personnel. The second approach concerns the longer-term view with the emphasis on the preservation of professional qualifications and standards.

Concerned as we should be with maintaining and improving our professional standards, we also must face up to the reality of the current and growing shortage of physicians. This shortage is most critical in our rural areas, the urban ghettos and in the private hospitals not affiliated with our medical schools and not capable of meeting the exacting standards of an accredited training program. Yet these hospitals provide a good portion of the care which the citizens of our state receive and they need help at this time. We would, therefore, suggest the following resolution which meets a current need and at the same time does not freeze the State Board of Healing Arts into a permanent policy change:

Whereas, There is an immediate and serious shortage of physician personnel in the state of Missouri; and

Whereas, The shortage is particularly acute in private hospitals not capable of supporting an accredited training program; and

Whereas, The current policy of the Missouri State Board of Healing Arts does not permit granting of temporary licenses to foreign physicians unless they are functioning in hospitals with accredited training programs; be it therefore

Resolved, That this Missouri State Medical Association House of Delegates petition the Missouri State Board of Healing Arts to take the following action: Grant temporary medical licenses to foreign physicians who have graduated from a recognized school of medicine, who have passed the ECFMG examination, who are practicing in a hospital licensed by the state of Missouri and whose work is supervised by physicians licensed by the state of Missouri; such temporary licenses being valid only for practice within the stated hospital and for a set and limited period of time.

(Referred to Reference Committee on Medical Education and Public Welfare.)

Dr. Kelley then introduced the second resolution from St. Louis and St. Louis County Medical Societies.

The second concern involving preservation of professional qualifications and standards, while at the same time enlarging the lists of practicing physicians, requires another look at the present requirement of United States citizenship before acceptance as an examinee by the State Board of Healing Arts. It seems to us that it should be a main purpose of the Missouri State Medical Association to increase the number of qualified, competent practicing physicians. We believe this will be accomplished in part through the following resolution:

Whereas, The shortage of practicing physicians is becoming increasingly acute in the state of Missouri; and

Whereas, The medical schools of this country cannot in the foreseeable future meet the increasing demand for physicians; and

Whereas, There is an instant source of qualified, trained, physicians who have graduated from recognized foreign medical schools; therefore be it

Resolved, That this Missouri State Medical Association House of Delegates petition the Missouri State Board of Healing Arts to take the following actions:

1) Initiate action to remove the citizenship requirement for admittance to examination.

2) Require that examinee graduates of recognized foreign medical schools have training equivalent to that of American schools and that they shall have passed the ECFMG examination.

3) Require that noncitizen applicants for examination will have made formal application to institute procedures leading to eventual full citizenship.

(Referred to Reference Committee on Medical Education and Public Welfare.)

Dr. Byron E. Watts introduced four resolutions from the Cole County Medical Society.

Resolution—Administration of Intra-cardiac Medication by Specially-Trained Nurses

Whereas, The MSMA has in a recent annual session approved the use of electric shock by specially-trained nurses working in coronary care units and/or intensive care units for cardiac emergencies; and

Whereas, Intra-cardiac medication is sometimes needed in cardiac resuscitation; and

Whereas, This medication must be given without delay if a fatality is to be avoided; now therefore be it

Resolved, That the MSMA approves the administration of intra-cardiac medication by specially-trained nurses working in coronary care units and/or intensive care units when needed for cardiac resuscitation.

(Referred to Reference Committee on Medical Education and Public Welfare.)

Dr. Watts introduced the second resolution from Cole County Medical Society.

Resolution—St. Louis Blue Shield and Kansas City Blue Shield

Whereas, St. Louis Blue Shield operates under sponsorship of the Missouri State Medical Association; and

Whereas, This plan ought to be more responsive to the wishes and needs of the physicians in the eastern portion of Missouri; and

Whereas, There seems to be no sound reason why Missouri should have two separate Blue Shield plans; therefore

Be It Resolved, That unless the St. Louis plan unites with that of Kansas City, or failing that, develops substantially identical policies, premiums and schedules to those of the Kansas City plan, sponsorship of the St. Louis plan shall be withdrawn January 1, 1972.

(Referred to Reference Committee on Resolutions.)

Dr. Watts introduced the third resolution from Cole County Medical Society.

Resolution—Committee to Study the "Oregon Plan"

Whereas, Third party agencies and especially the federal bureaucracy appear to have the intention of increasing pressure to enact legislation requiring continuing medical education for physicians; and

Whereas, The vast majority of physicians recognizes the need for and do obtain such education; and

Whereas, This same majority prefers that this matter remain free of governmental action; now therefore

Be It Resolved, That a special committee be appointed by the Council to study the "Oregon Plan" and other alternatives and that the report of that committee and the Council's recommendation on such report be submitted to the component county societies by January 1, 1971, so that the House of Delegates may act on these reports at the next annual session.

(Referred to Reference Committee on Reports of Officers.)

Dr. Watts then submitted the fourth resolution from the Cole County Medical Society.

Resolution—Medical Licensure Law Changes

Whereas, The statutes of the state of Missouri discriminate against the noncitizen physician by refusing licensure regardless of his acceptable qualifications; and

Whereas, Such discrimination is causing Missouri to lose much-needed physicians to other states; and

Whereas, This discrimination may well be unconstitutional, and

Whereas, The Attorney General of the state of Missouri has been asked for an opinion on this question; now therefore be it

Resolved, That

1. The Council of the Missouri State Medical Association immediately requests the State Legislature to remove the citizenship requirement from the statutes.
2. Should the Attorney General conclude that the citizenship provision of Section 334.031 is unconstitutional, the Council of the Missouri State Medical Association immediately requests the Board of Registration for the Healing Arts expeditiously to grant temporary licensure to applicant noncitizen physicians otherwise qualified.

(Referred to Reference Committee on Medical Education and Public Welfare.)

Dr. Stanley Peterson introduced a resolution cosponsored by Greene County Medical Society and the Eighth Councilor District.

Resolution—Negotiation of Professional Fees

Whereas, The Federal Government has seen fit to fix fees in government-supported medical care programs without consultation with the physicians involved; and

Whereas, State programs of medical care also seem to be doing this; and

Whereas, Much of this type of unilateral action seems to be embodied in the pending legislation; therefore

Be It Resolved, That the Missouri State Medical Association be directed to set up the mechanism for negotiation of not only professional fees but also the rules, regulations and procedures that establish the conditions under which the physicians render their services; and be it further

Resolved, That the delegates to the American Medical Association be instructed to establish a similar mechanism at the AMA level.

(Referred to Reference Committee on Resolutions.)

Dr. Troy Morgan introduced a resolution from the MSMA Committee on Medicine and Religion.

Resolution—Medicine and Religion

Whereas, The care of many patients within the state of Missouri is by a "team" approach; and

Whereas, Physicians are strongly encouraged to seek consultation when patients are critically or strangely ill; and

Whereas, Many paramedical people are frequently involved in patient care and in the sharing of confidential information pertaining thereto, including social or welfare workers, physical therapists, psychologists and others; and

Whereas, The clergymen of various religious faiths in our area are a well-defined professional group; and

Whereas, These clergymen, in general, follow a code of ethics pertaining to confidential information; and

Whereas, Many of the larger hospitals have a full-time chaplain already participating in the total care of the patient and family;

Be It Therefore Resolved, That the Missouri State Medical Association recognizes that clergymen may be called upon for consultation at the discretion of the physician and may ethically share confidential and pertinent information relative to the care and spiritual and emotional health of a patient.

(Referred to Reference Committee on Reports of Officers.)

There being no additional business, the Speaker declared the first session of the House of Delegates adjourned.

SECOND SESSION

Friday, April 3, 1970

The Second Session of the House of Delegates was called to order at 4 PM in the Colonial Ballroom with Dr. Paul Max, Speaker, presiding.

Dr. Mixon of the Credentials Committee reported that a quorum was present.

Dr. E. D. Imes, Vice-Speaker, took the chair and invited Dr. Blaine Z. Hibbard, Chairman of the Reference Committee on Constitution and By-Laws, to make his report.

CONSTITUTION AND BY-LAWS

The Reference Committee on Constitution and By-Laws met on April 2, 1970. The meeting convened in Room 365 of the Muehlebach Hotel. All members of the Reference Committee were present.

Resolution—Change in Date for Determining Number of MSMA Delegates

The first item discussed was the resolution introduced by the Council (Jan. 30-31 meeting) regarding the change of date for determining the number of Delegates to the MSMA. The Reference Committee unanimously approved this resolution.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

The amended report of the Committee on Constitution and By-Laws was discussed next. Following is the amended version of this report and the recommended changes as outlined by this Committee. In order that Page 2 will agree with amended Page 3, the names of the Commissions under Section 2 will have to be changed as follows:

Commission on Public Affairs

Commission on Medical Economics, Third Party Medicine and Governmental Relations

Commission on Continuing Education and Health Power

Commission on Medical-Legal Affairs

Commission on Interspecialty Medicine

In addition, Page 3, Section 3 was amended to read "50% of the members of a Committee or Commission should be present to constitute a quorum."

Your Reference Committee recommends approval of the amended version of the report of the Constitution and By-Laws Committee.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved. The Speaker announced that these changes in the By-Laws would require a second vote and that the report of the Constitution and By-Laws Committee would lay on the table and be reintroduced at the House of Delegates Session on Sunday for that purpose.)

Resolution #10—Full Membership for Osteopathic Physicians

Resolution #10 regarding full membership for osteopathic physicians, which was introduced by Boone County Medical Society, was discussed. The Reference Committee amended this resolution by deleting the last five words in the last sentence of the Resolution and replacing the comma after the word, Missouri, with a period, as follows:

> *Resolved,* That the Missouri State Medical Association amend its by-laws to allow both state and local societies to accept for full membership osteopathic physicians who are licensed to practice medicine in Missouri.

Mr. Speaker, since this still allows local option regarding whether or not osteopaths are to be accepted for membership, the Reference Committee recommends adoption of Resolution #10 as amended.

(The motion was seconded. During the discussion, it was moved to return Resolution #10 to the Committee with the recommendation that the present ruling regarding associate membership for osteopaths be retained. This motion was seconded and defeated. The Speaker called for a vote on the adoption of Resolution #10, as recommended by the Reference Committee, and it passed by a vote of 88 to 48.)

Resolution—Membership for Osteopathic Physicians

The resolution regarding Membership for Osteopathic Physicians, which was introduced by Ozarks Medical Society, was not recommended for approval.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution #13—New Member Indoctrination

The Committee discussed Resolution #13 submitted by the St. Louis Medical Society regarding New Member Indoctrination. The Committee recommends that the word "two" in Line 3 of the second *Resolve* be changed to "three" to read "three years" and that the words "and/or membership" be deleted from Line 4 of this *Resolve*. The second *Resolve* would then read as follows:

> *Resolved,* That a new member be required, as part of his membership requirement, to attend the MSMA annual meeting and be registered for this informative session within three years of starting his practice.

Mr. Speaker, the Committee recommends adoption of Resolution #13 as amended.

(The motion was seconded. During the discussion, a second motion was made to amend Resolution #13 by stating "within three years of membership" instead of "practice." After further discussion, the second motion was withdrawn and a motion was made to return this portion of the report to the Committee for further study and perfection. The third motion was seconded and passed.)

Resolution #14—Membership Privileges and Responsibilities

The Committee recommends disapproval of Resolution #14 regarding Membership Privileges and Responsibilities which was submitted by St. Louis Medical Society.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

The Reference Committee on Constitution and By-Laws finds that our MSMA By-Laws state that associate members shall not have the right to vote and shall not pay dues. The By-laws do not state whether they may or may not serve on committees. The Reference Committee feels that this matter should be referred to the Committee on Constitution and By-Laws for definition. I recommend the adoption of this portion of the report.

(The motion was seconded and passed. The Speaker again reminded the House of Delegates that changes in the Constitution and By-Laws must lay on the table until the next session on Sunday, at which time they will be voted on again and must receive a two-thirds vote for adoption.)

At this time, Dr. Max took the chair. He invited Dr. James Sisk, Chairman, to give the report of the Reference Committee on Resolutions.

RESOLUTIONS

The meeting of the Reference Committee on Resolutions was held at 9 PM on April 2, 1970 in Room 362 of the Muehlebach Hotel with all members present.

The Committee reviewed those portions of the Council meetings referred to the Resolutions Committee in the Booklet of Official Reports to the House of Delegates, the January 20-21 minutes included in the Handbook and the report of the April 1 Council meeting and accepted them as information. In addition, the report of the Committee on Medical Economics was reviewed and approved.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded. A Delegate moved that the report be amended by adding to Line 4 of Paragraph 2 the following: "And the Council be directed to implement the proposed peer review procedure with expediency." His motion was seconded, and passed.)

The Committee next considered three related Resolutions concerning sponsorship of Blue Cross and/or Blue Shield by MSMA.

Three Resolutions Regarding MSMA Sponsorship of Blue Cross and/or Blue Shield

First was Resolution #5, which was introduced by Audrain County Medical Society and ended with this resolution:

> *Resolved,* That the Missouri State Medical Association cease endorsing the Blue Cross and Blue Shield programs as the Blue programs are in competition with private enterprise companies and, on such a competitive basis, should be able to stand on their own merits.

Second was the proposed substitute resolution for Resolution #5 introduced by Jackson County Medical Society which stated the following:

> *Resolved,* That the MSMA terminates its sponsorship of Missouri Medical Service (St. Louis Blue Shield) by September 1, 1970; and
>
> *Be It Further Resolved,* That the MSMA encourages those county medical societies in the areas actually served by Missouri Medical Service to assume such sponsorship.

Third was the resolution introduced by Cole County Medical Society which states:

> *Be It Resolved,* That unless the St. Louis (Blue Shield) plan unites with that of Kansas City, or failing that, develops sub-

stantially identical policies, premiums and schedules to those of the Kansas City plan, sponsorship of the St. Louis plan shall be withdrawn by January 1, 1972.

The Reference Committee disapproved these three resolutions. It was the opinion of the Committee that approval might well endanger the insurance coverage of large numbers of Missouri subscribers to these plans. The Resolutions Committee strongly recommends to the Council that an Ad Hoc (Blue Shield) Committee be appointed to consider the relative merits and problems inherent in the two Blue Shield plans with the intent of improving the benefits to the subscribers and rapport with the physicians.

Mr. Speaker, I move the adoption of this section of the report.

(The motion was seconded. A second motion was introduced to amend the Committee's recommendation by stating that the Ad Hoc Committee consist of "physicians in the membership of the geographical area of St. Louis Blue Shield." The motion was seconded and defeated. The Chairman's original motion to adopt this portion of the report was approved.)

Resolution—State Premium Tax on Blue Cross and Blue Shield

The resolution from Jackson County Medical Society regarding state premium tax on Blue Cross and Blue Shield was approved.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution—Missouri Medical Services Corporation

The resolution from St. Louis Medical Society, which resolved that "the practicing physicians of Missouri through MSMA direct its sponsored organization, Missouri Medical Services, Inc., to provide total health care insurance," was not recommended for approval. However, the Committee does recommend that this resolution be referred to the Ad Hoc Blue Shield Committee for further consideration and study.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution #12—Extended Care Claim Rejections

Resolution #12 from Clay County Medical Society was recommended for approval with the deletion of Paragraph 3 which reads: "Whereas, skilled nursing care has not adequately been defined." The definition may be found reprinted from the Federal Register, Vol. 34, No. 207-Sub Part A, Section 405.127: Post Hospital Extended Care: Skilled Nursing Services.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Three Resolutions Regarding Utilization Review Committees

The Committee considered the St. Louis Medical Society Resolution #16 which refers to "HEW's Nullification of Utilization Review Committees"; the St. Charles-Lincoln County Medical Society resolution which refers to "Utilization Review Committees"; and the Greene County Medical Society resolution which refers to "Improper Decisions Against Part A Medicare Patients by St. Louis Blue Cross." The Committee felt that each resolution is directed to complaints that St. Louis Blue Cross, acting as fiscal intermediary for Medicare Part A, has arbitrarily overridden decisions of duly constituted Utilization Review Committees in many instances. The Committee felt that each resolution had something to say to this matter from a different point of view. For this reason, the Committee recommends approval of the three resolutions.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution #7—Audit of Medicare-Medicaid Costs
and
Resolution—Dispensing Medicaid Funds

In regard to the Ozarks Medical Society's resolution referring to "Audit of Medicare-Medicaid Costs" and Greene County Medical Society's resolution referring to "Dispensing Medicaid Funds," it is the opinion of the Committee that actions that have been taken and are being taken by the Council, as reported in the Council minutes of April 1, are implementing the intent of these resolutions. For this reason, the Committee recommends that they be disapproved.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Joint Resolution—Outpatient Medicaid Coverage of Patients With Emotional Problems

The joint resolution introduced by St. Louis Medical Society and St. Louis County Medical Society and endorsed by the Missouri Psychiatric Association in regard to Medicaid Coverage of Outpatients With Emotional Problems was recommended for approval.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution—Negotiation of Professional Fees

The resolution from Greene County Medical Society concerning Negotiation of Professional Fees was recommended for approval by a majority vote of the Committee.

Mr. Speaker, I move the adoption of this portion of the report. There will be a dissenting minority opinion.

(Dr. Charles Jost, representing the minority of the Committee, then moved that the resolution be defeated. At a Delegate's request, the resolution was reread before the House. The Speaker called for a vote on the majority report of the Committee and it was approved.)

Mr. Speaker, I move the adoption of this report in its entirety. (The motion to adopt the report as a whole was seconded and passed.)

Dr. B. J. Bass, Chairman, was invited to give the report of the Reference Committee on Miscellaneous Affairs.

MISCELLANEOUS AFFAIRS

The Reference Committee on Miscellaneous Affairs convened in Room 363 in the Muehlebach Hotel at 4 PM on April 2, 1970. Drs. Albert Grant, Ned B. Chase, Marshall Conrad, Robert Slickman and I were present.

The Official Reports of Committee and Council to the House of Delegates have been published and have been issued to each Delegate to this convention.

All the reports which were referred to the Miscellaneous Reference Committee at the meeting of the House of Delegates on April 2, 1970 were individually reviewed and accepted as published with the exception of the report of the Committee on Maternal Welfare whose recommendations will be considered later in this report.

Mr. Speaker, I move the adoption of this noncontroversial portion of this report.

(The motion was seconded and approved.)

The Committee considered the supplemental report of the Council to the House of Delegates and approved the recommendation for reappointment of Dr. Byron Stuart as the official MSMA Representative to the Liaison Committee to the Missouri Regional Medical Program. This Committee is composed of representatives from voluntary health organizations in the State of Missouri.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

The second portion of the supplemental report of the Council dealt with a proposed new Missouri law which would require nursing home administrators to be licensed in the State of Missouri after July 1, 1970, if such homes are to participate under Title XIX programs. The Council also recommended Association support for legislation placing such licensure of said administrators under the State Board of Health.

The Committee recommends approval of the Supplemental Report of the Council. Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Four Resolutions From the Committee on Rural Medical Service

The Committee recommends approval of the four resolutions introduced by the Committee on Rural Medical Service, as follows:

Resolution #1—Overturn Protection for Farm Tractor Operators

Whereas, More than 1,000 persons are killed annually in farm tractor accidents in this country, the majority being by tractor roll-over accidents; and

Whereas, Considerable evidence is available to show that protective frames and crush-resistant cabs have potential to sharply reduce the number and severity of injuries to operators involved in tractor overturns; and

Whereas, Basic operator overturn protection on farm tractors must not be restricted or confined to the two-post protective frame, but should be basic equipment either as a two-post protective frame, or a four-post protective frame, or a crush-resistant cab, or by any other means for which standards would and could be developed; and

Whereas, Physicians are responsible for making known and supporting preventive measures for accidental deaths when possible; therefore be it

Resolved, That the Missouri State Medical Association encourages the American Society of Agricultural Engineers and the Society of Automotive Engineers to adopt performance standards for basic overturn protection of farm tractors, including protective frames and crush-resistant cabs; and be it further

Resolved, That the farm equipment industry be encouraged to make available, as basic equipment, operator overturn protection on farm tractors that will confrom to these standards.

Resolution #2—Slow Moving Vehicle Emblem Identification

Whereas, Tbe Slow-Moving Vehicle (SMV) Emblem has aroused national interest because of its potential for identifying, on public roads, slow-moving vehicles with speed capabilities of less than 25 miles per hour, which include vehicles such as farm tractors and other farm vehicles, road maintenance and construction equipment and horse-drawn vehicles.

Whereas, The SMV emblem, developed from research at The Ohio State University, is a 14-inch equilateral triangle with a fluorescent orange center for daytime visibility and a reflective red border for nighttime, which when properly mounted on the center rear of a vehicle, two to six feet from the ground, can be seen and identified from 500 feet or more, both day and night.

Whereas, The American Society of Agricultural Engineers and the Society of Automotive Engineers have developed specifications for physical properties, dimensions, component materials and use of the emblem.

Whereas, The Board of Directors of the National Safety Council approved a Policy Statement on the SMV emblem which formally confirms full Council support for the promotion and use of the SMV emblem, urges tbat every effort be made to encourage emblem use on slow-moving vehicles, and to educate the public to recognize it as identifying a slow-moving vehicle.

Whereas, Even though a number of states have passed enabling legislation on the use of the emblem and progress is being made, increased emphasis is needed to secure national adoption and use of the emblem; therefore be it

Resolved, That the Missouri State Medical Association officially endorse the SMV emblem and the objectives for which it stands; and be it further

Resolved, That the Missouri State Medical Association, in cooperation with county medical societies, promote the use of the emblem on slow-moving vehicles and help to educate the public to recognize it as identifying these vehicles.

Resolution #3—Programs for Rural Emergency Medical Services

Whereas, A recent study of traffic fatalities indicate that accidents in rural communities have a higher percentage of loss of life than similar accidents in urban areas; and

Whereas, The higher case fatality ratio in rural areas seems to be related to the inability to provide adequate first aid procedures and of transporting the person to a hospital within a reasonable length of time; therefore be it

Resolved, That the Missouri State Medical Association adopts and helps to implement, through the county medical societies, the following five-point program:

1. That rural communities coordinate their efforts with adjacent towns in analyzing existing patterns of response to medical emergencies. This must be done by each community individually, since urban and rural areas will have different problems. Bottlenecks and poor communication patterns may occur in different places. Particular isolated stretches of roadway or waterfront may have so many accidents that it is worth installing telephones or first aid supplies, or providing first aid training for residents or workers in these areas.
2. That rural and urban communities institute medical service area programs for medical emergency transportation, facilities and health personnel.
3. That rural and urban communities, where possible, adopt standards for ambulance equipment, personnel and operation, liability insurance requirements, maintenance of records, duties of regulatory agencies with penalties to be imposed by ordinance if these standards are not met.
4. That rural and urban communities provide a program of advanced Red Cross first aid instruction for the nonmedical people most frequently called in rural emergencies, especially police, sheriffs and ambulance crews.
5. That rural and urban communities develop a continuing campaign directed toward first aid instruction for rural families, particularly young people, through the schools, youth organizations and other education channels.

Resolution #4—Health Manpower in Rural Areas

Whereas, Trends in the U. S. toward urbanization and specialization in medical practice have resulted in a concentration of physicians in larger cities causing a maldistribution of physicians in certain rural areas and leaving some of the more sparsely populated rural areas without immediate access to medical care.

Whereas, An increasing number of patients, greater demand for services, more difficult patient problems, more complex diagnostic and therapeutic procedures, and a greater need for continuing education are all placing increasing demands upon the physician's time and skill; therefore be it

Resolved, That the Missouri State Medical Association urges local medical societies to give high priority to programs directed toward realigning the provisions of health care services in rural areas, and be it further

Resolved, That the Missouri State Medical Association initiates dialogue by the governing board of the association with medical schools, the various specialty and generalist medical groups, and all other appropriate organizations to the end of establishing positive recruitment and motivation of pbysicians to provide medical care for rural people; and be it further

Resolved, That the Missouri State Medical Association encourages positive practical programs in the state to supplement those already being conducted to study new methods and innovations with respect to health care services for rural areas; and be it further

Resolved, That the Missouri State Medical Association provides support for the recommendations of the AMA House of Delegates which call for the prompt start of major efforts "to encourage the development of new programs" to provide large numbers of family physicians.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution—Ambulance Service Regulations

The Committee recommends approval of the joint resolution from St. Louis City and St. Louis County Medical Societies concerning Ambulance Service and Emergency Rescue Personnel.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Resolution—Drunk Drivers Test

The Committee recommends approval of the second resolution from the St. Louis and St. Louis County Medical Societies concerning alcohol blood level and a definition of intoxication to be applied when persons are suspected of driving while under the influence of alcohol.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution—Population Control

The Committee recommends approval of the resolution from Creene County Medical Society in regard to Population Control.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution—Abortion

The Committee considered the Resolution on Abortion from Greene County Medical Society. In essence, this resolution requests MSMA approval of the official AMA position on abortion and abortion laws.

Since the report of the Maternal Welfare Committee also concerned itself with the subject of abortion and had been officially reported to all members of the House of Delegates on page 25 in the booklet of Official Reports to the House of Delegates, the Committee chose to consider them simultaneously. The Committee recommends substitution of the report of the Committee on Maternal Welfare for the resolution from Greene County. The essential point of the Maternal Welfare Report dealing with abortion reads as follows:

> Recommendation for change in Missouri Abortion Laws: The present abortion law should be repealed and changed to read: "An abortion should be considered illegal if performed by anyone other than a licensed physician in a place other than a licensed hospital."

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed. The motion to adopt the report as a whole was seconded and passed.)

Dr. M. D. Bonebrake, Chairman, was invited to present the report of the Reference Committee on Medical Education and Public Welfare.

MEDICAL EDUCATION AND PUBLIC WELFARE

The Committee on Medical Education and Public Welfare met in the Royal Hall of the Muehlebach Hotel on April 2, 1970 at 3:30 PM. All members were present. It was recommended by the Committee that the published reports of the Committees, Items 1 through 12, be adopted and approved as standing.

The Committee recommends that the published minutes of the Council meetings on June 14-15, 1969; Sept. 6-7, 1969; Dec. 13-14, 1969; and Jan. 30-31, 1970 be approved with the exception in the January 30-31 minutes regarding temporary licensure in Missouri and non-citizen physicians.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Five resolutions and the report of the Council meeting of Jan. 30, 1970 concerning the subject of Temporary Licensure were brought before the Committee. The Committee recommends that this problem be approached through a substitute resolution to read as follows:

> WHEREAS, The ability to practice medicine is a function of learning and experience entirely unrelated to citizenship, and there are many non-citizens of the United States who have this ability; and
>
> WHEREAS, There is a need for foreign medical graduates for additional training in this country; and
>
> WHEREAS, There is a need for appropriate licensure for such physicians while obtaining this training; therefore be it
>
> *Resolved*, That the House of Delegates of the Missouri State Medical Association recommend to the Legislature that citizenship requirement be entirely removed from the qualifications for licensure to practice medicine in the State of Missouri and that licensure be granted on the basis of education, training and demonstration of ability through appropriate examination; and be it further
>
> *Resolved*, That the Missouri State Medical Association goes on record as favoring the granting of temporary licensure to practice medicine in the State of Missouri to those individuals who have passed the ECMFG examinations and who are in an American Medical Association-approved training program in a medical facility within the State of Missouri.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded. A second motion was introduced to amend the substitute resolution as follows:

> *Be It Further Resolved*, That the MSMA go on record as favoring the granting of temporary licensure now to foreign M.D.'s who have passed the ECFMG examination and working in Missouri hospitals accredited by the Joint Committee on Accreditation and supervised by their medical staffs, and provided that their work is limited to work in these hospitals only and that the State Board of Healing Arts be informed of this action by the Missouri State Medical Association.

This motion was seconded and was followed by a third motion to amend the amendment by including the requirement that "physicians must be able to speak the English language adequately." The third motion was seconded and passed.

The Speaker called for a vote on the amended second motion which amended the Committee's substitute resolution and it was approved by a vote of 76 to 60. Dr. Bonebrake's motion to accept this portion of his report also was approved as amended.)

Resolution—Chiropractic

The Reference Committee on Resolutions recommends that the Greene County Medical Society's resolution regarding Chiropractic be amended by deleting the word "physicians" in Paragraph 3, Line 3 and inserting the word "practitioners" to read as follows:

> "and itself against practitioners deficient in moral character or professional competence."

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution—Increased Use of Paramedical Personnel

The Committee referred Greene County Medical Society's resolution on Increased Use of Paramedical Personnel to the Committee on Medical-Legal Affairs for an opinion.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution on Drug Abuse

The Resolution on Drug Abuse introduced by St. Louis Medical Society was approved with the addition to the final *Resolve* that a copy of this resolution be forwarded to the American Medical Association.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution—Environmental Pollution

The Committee recommends approval of the resolution concerning Environmental Pollution which was introduced by St. Louis Medical Society.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Drug Abuse Resolution

The Committee recommends approval of the Resolution on Drug Abuse which was introduced by St. Louis Medical Society.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Resolution—Administration of Intra-Cardiac Medication by Nurses

The Committee recommends approval of the Resolution on Administration of Intra-Cardiac Mediation by Nurses introduced by Cole County Medical Society.

Mr. Speaker, I move the adoption of this portion of the Report.

(The motion was seconded and passed.)

Resolution—Diploma Nursing Education

The Committee recommends approval of the resolution from Jackson County Medical Society regarding Diploma Nursing Education.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved. The motion to adopt the report as a whole was seconded and approved.)

Amendment to Resolution #13

At this time, the Speaker yielded the floor to Dr. Blaine Hibbard, Chairman, of the Reference Committee on Constitution and By-Laws, who introduced an amendment to the first two Resolves of the Resolution #13 on behalf of the Committee:

> *Resolved,* That an indoctrination program for newcomers be developed by MSMA, the format and time of presentation of the program to be decided by the Council of MSMA.
>
> *Resolved,* That a new member be required as a part of his membership requirement to attend the indoctrination program within the first three years of his practice of medicine after joining the MSMA and unless an appropriate excuse is accepted by the Council of MSMA.

Mr. Speaker, I recommend the adoption of this amendment.

(The motion was seconded and approved.)

Dr. Frank Matteson, Chairman, was invited to present the report of the Reference Committee on Reports of Officers.

REPORTS OF OFFICERS

The Reference Committee on Reports of Officers met in Room 4 of the Hotel Muehlebach on April 2, 1970 with all members present.

The Reports of the President, Doyle C. McCraw; President-Elect Joseph L. Fisher; President of the Woman's Auxiliary to the MSMA, Mrs. James A. Reid; and the President of the Missouri State Medical Secretaries and Assistants Society, Mrs. Zelma Jansen were accepted.

The Committee recommends approval of the reports of the Secretary, Treasurer, Executive Secretary, Publications Committee and Committee on Public Service as published in the Delegates' Handbook.

The portion of the reports of the Council given to this Committee were approved including the supplemental report of the Interspecialty Committee Subcommittee, as published on Page 9 of the Handbook.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution—Tax Referendum

The resolution regarding the tax referendum, which was introduced by Jackson County Medical Society, was rejected by the Committee as written.

At this point in the proceedings, Dr. George Lytton arose to present a minority report of the Committee. He stated that the minority accepted the Whereas statements in the resolution, but proposed to amend the resolution as follows:

> *Resolved,* That the Missouri State Medical Association recognizes the responsibility of the General Assembly of the State of Missouri in the orderly preservation and development of existing programs to meet the health needs of the state; and be it further
>
> *Resolved,* That the Missouri State Medical Association supports the General Assembly in its efforts to accomplish these objectives.

(This motion to amend the resolution was seconded. After lengthy discussion and a rereading of both the original and amended resolutions, it was voted to accept the minority report and the amended resolution.)

Dr. Matteson resumed his report by stating that the following resolutions had been rejected by the Reference Committee:

Resolution #8—Promoting Private Medical Care System

Resolution #9—Study of Health Care Needs and Solutions

Resolution—New JCAH Regulations on Abbreviations

The Committee approved the following resolutions:

Resolution—Special Committee to Study the "Oregon Plan"

Resolution—Interim Scientific Meeting.

Resolution—Medicine and Religion.

The Committee noted with disfavor that a number of committees did not meet during the past year.

Mr. Speaker, I move the adoption of this portion of the report and the adoption of the report as a whole.

(The motion was seconded and passed.)

Dr. H. Peter Ekern, Chairman, was invited to give the report of the Reference Committee on Necrology.

NECROLOGY

The Reference Committee on Necrology met in Room 3 of the Hotel Muehlebach on April 2, 1970.

The Necrology Committee of the Missouri State Medical Association regretfully reports that there have been 63 deaths among our members since the 1969 Annual Session, whose names are attached to this report.

Each of these members is missed as an individual and for his contributions to the practice of medicine and the Missouri State Medical Association. The loss of each member is keenly felt by our individual members, his loved ones and close associates and, we are confident, the patients he has served with dedication.

Condolences in the form of a tribute have been sent to the immediate family of each deceased member, and this expression will continue to be sent in the future.

With these thoughts in mind, the Necrology Committee offers the following resolution:

Be It Resolved, That the House of Delegates now stand for a moment of silence and prayer to pay personal tribute and to honor the memory of the 64 members we have lost this past year and whose names will be recorded in the minutes of this Annual Session; and be it further

Resolved, That this moment of quiet and meditation will serve as a time of our individual rededication to our purpose in the ministry of medicine as we honor the names and unselfish devotion of all departed members of the Missouri State Medical Association; and be it further

Resolved, That we emulate their examples and praise God for good men and women.

Mr. Speaker, I move that the report of the Necrology Committee be approved.

(The motion to adopt the report was seconded and the Speaker asked the House of Delegates to stand for a moment of silence in indication of approval of the motion.)

Members Deceased Since the 1969 Session

Eldridge, Charles J., M.D., Kansas City
Bailey, Frank A., M.D., St. Louis
Logan, James A., M.D., Warsaw
Underwood, Harry A., M.D., Kansas City
Ellis, Burnett E., M.D., Gideon
Thompson, Emma, M.D., Columbia
Vinyard, Paul, M.D., St. Louis
Post, M. Hayward, M.D., Pleasant Valley, Conn.
Sewell, Minor F., M.D., Kansas City
Patton, William G., M.D., San Marino, Calif.
Lytton, William B., M.D., St. Louis
Hall, Frank W., M.D., Cape Girardeau
Farrar, Charles B., M.D., Cape Girardeau
Coffin, Ernest Linwood, M.D., Lake Worth, Fla.
Titterington, Paul F., M.D., Atherton, Calif.
Glennon, William P., M.D., St. Louis
Sinclair, Alexander B., M.D., Kansas City
Florian, Albert J., M.D., Tucson, Ariz.
Epple, Lawrence, M.D., Mexico
Epple, Kathryn, M.D., Mexico
Hamel, Herbert A., M.D., Kansas City
Miller, Charles W., M.D., Coral Gables, Fla.
Snyder, Edward N., M.D., Los Angeles, Calif.
Byars, Louis T., M.D., St. Louis
Green, Stanley L., M.D., Independence
Parker, H. Graham, M.D., Platte City
Repetto, Albert M., M.D., St. Louis
Andrae, Robert L., M.D., Louisiana
Passman, Harold, M.D., Kansas City
Edde, Clifford G., M.D., Kansas City
Fleming, Royall B., M.D., Kansas City
Goodman, Leroy, M.D., Shawnee Mission, Kan.
Shires, Edward B., M.D., Kansas City
Bull, Ben M., M.D., Ironton
Sarno, Samuel M., M.D., Morehouse
Meyer, Claude B., M.D., Springfield
Norton, William H., M.D., St. Louis
Dolezal, Joseph B., M.D., Kansas City
Thompson, J. William, M.D., Richmond Heights
Henke, Charles F., M.D., St. Louis
Gitt, Joseph J., M.D., St. Louis
Katz, Milton, M.D., Kansas City
Clithero, William H., M.D., Duarte, Calif.
Randall, Don Q., M.D., St. Charles
Pianetto, M. Besso, M.D., Koch
Walker, George S., M.D., Clinton
Post, Cyril A., M.D., Poplar Bluff
Nash, W. Hampton, M.D., St. Louis
Burns, Beryl I., M.D., Columbia
Beam, Sim F., M.D., St. Louis
O'Neill, John B., M.D., St. Louis
Crego, Clarence H., Jr., M.D., Ladue
Bruce, James G., M.D., Jefferson City
Strong, Richard M., M.D., Hannibal
Von Kaenel, Joseph E., M.D., St. Louis
Kirtz, Louis P., M.D., St. Louis
Ringo, Henry J., M.D., St. Louis
McNew, William T., M.D., Carthage
Saper, Philip, M.D., Rochester, N.Y.
Tripodi, Anthony M., M.D., Seal Beach, Calif.
Seabold, John A., M.D., University City
Jordan, Edward J., M.D., St. Louis
Leitz, Frank, M.D., Kansas City

Dr. Robert Kelley, Chairman, was invited to give the report of the Reference Committee "H."

COMMITTEE "H"

Your Reference Committee first wishes to thank all those delegates who made presentations and participated in the discussion concerning the reports of the AMA Committee on Planning and Development, generally known as the Himler Report. The physicians of 50 states, Puerto Rico, Virgin Islands and the Canal Zone have had an opportunity to study the report since December, 1969, when the House of Delegates of the AMA at the interim session in Denver directed each component state delegation to bring to the June, 1970 session its recommendations and resolutions. We are participating in a dramatic demonstration of democratic action at the grass roots level which should lay to rest any accusations that the AMA is a monolithic organization, unresponsive to the concerns and wishes of the individual physicians.

This Committee is deeply indebted to our state and component society staffs that were of great help in the groundwork leading to the actual sessions and to those staff members participating in the reference committee hearings and the preparation of this report.

The Reference Committee received two resolutions which we shall refer to as the *Jost Resolution* and the *Bruns Resolution* and which advised that the Himler Report be rejected and that this state society, through its delegates to the AMA, so advise the AMA House of Delegates at the Annual Meeting in Chicago in June, 1970. We interpret the intent of these resolutions to oppose any planning by the AMA which involves cooperative action with government agencies and, particularly, where such actions are likely to restrict the independent ability of the medical profession to plan for its own future. These resolutions warn of the ultimate dangers to medicine as a result of continued cooperation with governmental agencies and acquiescence to governmental regulations and restrictions. The Jost Resolution directs the MSMA to recommend to the AMA that it discontinue all planning and collaboration with governmental agencies and that the Committee on Permanent Long-Range Planning and Development should not be established. The Bruns Resolution recommends the formation of a new committee charged with studies in the same area but staffed by physicians "opposed to those who acquiesce to advocates of deterioration of the status of the professional and meddling in the affairs of all mankind."

The Reference Committee received a report from the council of MSMA based on a study by a special Ad Hoc Committee that utilized both the majority and minority reports in a line-by-line critique. The Ad Hoc Committee made many deletions, substitutions and additions. The Ad Hoc Committee accepted the general philosophy and concern regarding the Himler Report that was expressed by Dr. John H. Budd in his minority report (Lines 1-14, Page 1). With this acceptance plus their own numerous alterations, they are in agreement with the concept of present and future planning, the formation of a permanent committee on Planning and Development and with active participation of organized medicine in all facets of the planning for and the delivery of health care.

This Reference Committee has reviewed with members of the council the revisions which were made in the Himler Report and which appear in the Delegates Handbook as the *Council Amended and Approved Report of the MSMA Himler Study Committee.* Beginning on Page 2 of this report are listed 21 premises incorporating the deletions, additions and substitutions as finally recommended by Council of MSMA.

The Reference Committee, after lengthy deliberation has arrived at the following conclusions:

Jost Resolution

1. This resolution, while expressing the multiple frustrations and concerns arising from government involvement in the practice of medicine, offers as an alternative course complete withdrawal from all planning processes tinged in any way by government participation and a return to an economic system based solely on supply and demand. Your Reference Committee recommends that this resolution not be accepted.

Mr. Chairman, I move the adoption of this portion of our report.

(The motion was seconded and passed.)

Bruns Resolution

2. This resolution is critical of many sections of the Himler Report and its general basic philosophy. It advised rejection of the report and a direction to the AMA to form a new committee oriented to a philosophy similar to that expressed by the author of this resolution. Your Reference Committee is sympathetic with many of the comments expressed, but believes complete rejection of a document as important as the Himler Report is inadvisable. It also seems inappropriate to suggest that an organization as large as the AMA, representing a great diversity of practice options and opinions, should form a planning committee composed of physicians motivated in a single narrow path of action.

Your reference committee recommends that this resolution not be accepted.

Mr. Chairman, I move adoption of this portion of our report.

(The motion was seconded and passed.)

3. The Reference Committee approves in general the comments included in the minority report of Dr. John H. Budd. We believe these comments reflect the sentiments of a majority of the members of this House of Delegates and of the members of the MSMA and that they should guide our Delegates to the AMA when the Himler Report is again considered.

The Reference Committee recommends acceptance of the Council-Amended and -Approved Report of the MSMA Himler Study Committee, with revisions that we have made in several premises and which are listed below. If the House elects to accept the Council Report, as revised by this Reference Committee, this will then serve as a directive to our Delegates to the AMA.

The Reference Committee action in regard to the 21 premises of the Council-Amended and -Approved Report of the MSMA Himler Study Committee is as follows:

Premises 1 through 7: Approved without revision.

Premise 8: Approved points (2) through (7).

Recommend substitution of Budd Report beginning in Line 50, Page 3 of minority report and continuing through Line 3, Page 4, for point (1). Point (1) would then read: "in seeking as its goal the highest quality of patient care, the most effective use and broadest availability of the science and art of medicine, the Association advocates factual investigation and objective experimentation in new methods of delivery of health care while still maintaining faith and trust in the private practice of medicine and pride in its accomplishments."

Premises 9 through 15: Approved without revision.

Premise 16: Is rewritten as follows:

1. Medical societies at all levels should support the concept of PL 89-749 and the establishment of properly constituted planning agencies, provided,
   a. the areawide comprehensive health planning agencies at local levels have broad community representation on the boards of directors, in contradistinction to their advisory committees and councils. It is inadvisable to permit local local governments, composed as they are of elected and appointed officials of varying capability and tenure, to dominate or control health planning.
   b. that medical societies have proper representation on the executive bodies of their planning councils. The societies should not accept a purely advisory function.
2. To this end, the state medical societies should make every effort to inform physicians and county medical societies of the details of PL 89-749, the role they should seek in areawide planning and their legal recourse if they are not accorded proper representation.
3. That the Association request the state medical

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ontraindications: Hypersensitivity to any mponent.
arning: In renal impairment, since liver toxity is possible, lower doses are indicated; durg prolonged therapy consider serum level terminations. Photodynamic reaction to sunght may occur in hypersensitive persons. otosensitive individuals should avoid expore; discontinue treatment if skin discomfort curs.
recautions: Drowsiness, anorexia, slight gasic distress can occur. In excessive drowsiss, consider longer dosage intervals. Persons on full dosage should not operate vehicles. Nonsusceptible organisms may overgrow; treat superinfection appropriately. Treat beta-hemolytic streptococcal infections at least 10 days to help prevent rheumatic fever or acute glomerulonephritis. Tetracycline may form a stable calcium complex in bone-forming tissue and may cause dental staining during tooth development (last half of pregnancy, neonatal period, infancy, early childhood).
Adverse Reactions: *Gastrointestinal*—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. *Skin*—maculopapular and erythematous rashes; exfoliative dermatitis; photosensitivity; onycholysis, nail discoloration. *Kidney*—dose-related rise in BUN. *Hypersensitivity reactions*—urticaria, angioneurotic edema, anaphylaxis. *Intracranial*—bulging fontanels in young infants. *Teeth*—yellow-brown staining; enamel hypoplasia. *Blood*—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. *Liver*—cholestasis at high dosage.
Upon adverse reaction, stop medication and treat appropriately.

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societies to submit information on the status of comprehensive areawide planning in their states and the problems that are being encountered.

4. That this information be analyzed, summarized, and redistributed to the state societies and a résumé, prepared by the Law Division, of the provisions in the law that are pertinent to those suggestions.
5. That the implementation of comprehensive areawide health planning be reviewed periodically and that the state and county medical societies be advised of the problems and pitfalls in this difficult but important area of endeavor.
6. PL 89-239 merits continued interest of the Association and constituent component medical societies.

Premises 17 through 21: Accepted without revision.

Mr. Chairman, I move adoption of this portion of the report.

(The motion was seconded. After discussion, Dr. Bruns moved that the Committee Report be amended by changing the reference on Page 4, Line 3 of the Himler Report by substituting the word "available" for the word "required" to read, "the AMA be available to guide and assist members." The motion was seconded and approved by a vote of 58 to 46.

Dr. Bruns then moved the deletion of Lines 1 through 11 on Page 26 of the Himler Report, which advocate the monitoring of all activities, both clinical and financial in both the hospital and office practice of physicians. The motion was seconded and carried.

Dr. Bruns then moved the deletion of Lines 25 through 34 on Page 43 of the Himler Report which read, "It is both distasteful and self-defeating, however, for a medical society to use threats as a weapon when dealing with matters that impinge directly on the public health and welfare. Recent wage discussions and strikes among civil service workers, particularly in the state of New York, have made it evident that in the public or private domain, negotiations based on the threat of public inconvenience or peril are intolerable. It would certainly be useless, as well as contrary to medical profession's traditions for physicians or their representatives to adopt a trade union bargaining approach." The motion was seconded and approved.

Dr. Bruns moved the deletion of the portion of the Himler Report beginning on Line 41, Page 38 which included the recommendation that the American Medical Association requests the state societies to submit information on the status of comprehensive areawide planning. The motion was seconded and defeated.

Dr. Kelley, Chairman of Reference Committee "H," then moved that the report as a whole be adopted as amended.

(The motion was seconded and approved.)

The Speaker requested any additional reports of the Council. There being none, he invited new business.

Dr. Joseph Edwards introduced a resolution from the St. Louis and St. Louis County Medical Societies.

Resolution—Ad Hoc Committee to Study District Status

Whereas, There has been a definite change in the distribution of physicians in Missouri; and

Whereas, There has been no redistricting or reapportionment of Councilors for several years; and

Whereas, The federal programs of medical care make it essential that districts be coordinated and completely organized to be able to bring all their resources to bear to attain the best conditions possible for their patients and their physicians; therefore be it

Resolved, That the President and the Council of the MSMA be instructed by the House of Delegates to appoint an Ad Hoc Committee to study the present district status and to bring back a recommendation to the 1971 House of Delegates for a more equitable representation of the physicians in any one district.

(Referred to Reference Committee on Reports of Officers.)

Dr. Charles Sherwin introduced a resolution from St. Louis Medical Society.

Resolution—Public Information Concerning Health Care Costs

Whereas, The national and regional news media have been carrying frequent news and feature articles detailing the rapid rise in the cost of health care, and

Whereas, Basing tbeir actions in large part on such news coverage, some legislators are preparing to introduce legislation which would extend the nationalization of an "insurance program" for health care; and

Whereas, The bulk of the rise in health care costs are directly related to those incurred in hospital care; and

Whereas, The earlier low costs looked upon as the norm for health care costs were the result of subsidization of this care by those supplying it, in terms of long hours and poorly compensated services, during a period of several decades when adjacent segments of the economy were showing steady cost and wage increases; and

Whereas, The recent rapid rise in health care costs is closely related to the rise in the incomes of hospital and technical personnel, from the long-maintained, unrealistically low levels to a level more commensurate with (a) the steadily increasing demands of living in the current economy, (b) the steadily increasing demands of educational preparation and accrued skills, both in terms of time and money, and (c) the Federal Minimum Wage Law, as well as the rise in material costs related to highly technical and disposable equipment; and

Whereas, These bases for the upward change in health care costs are not being given sufficient exposure to the public; and

Whereas, Our esteemed incoming President, Dr. Joseph Fisher, has called upon this House of Delegates of the Missouri State Medical Association to request of its parent organization, the American Medical Association, through its Delegates to that body, to bring a more realistic story before the public; therefore be it

Resolved, That this House of Delegates of the Missouri State Medical Association instruct its delegates to the American Medical Association to stress these facts before that august body; and be it further

Resolved, That these Delegates to the American Medical Association be instructed to bring before that body a resolution directing the officers, the Board of Trustees and the executive personnel of the American Medical Association to use whatever means may be or become available to include the budgeting of an appropriate sum of money, to bring these facts before the public at large; and be it further

Resolved, That a copy of this resolution be sent to the Missouri Hospital Association, the American Hospital Association, the American College of Surgeons and Chairman Wilbur Mills of the House Ways and Means Committee, as well as our own United States Senators and Representatives from the State of Missouri.

(Referred to the Reference Committee on Reports of Officers.)

There being no further business, the Speaker adjourned the Second Session of the House of Delegates with the announcement that the Annual Meeting of the Missouri State Medical Foundation would be held immediately following adjournment.

THIRD SESSION

Sunday, April 5, 1970

The Third Session of the MSMA 112th House of Delegates was called to order by the Speaker, Dr. Paul Max, at 7:30 AM in the Colonial Ballroom in the Muehlebach Hotel. Dr. William Mixon, Chairman of the Credentials Committee, reported the presence of a quorum. With unanimous consent, the Speaker dispensed with a roll call and the reading of the minutes of the two previous sessions.

Dr. Kenneth Glover, Chairman of the Nominating Committee, was invited to present the report of his committee.

NOMINATING COMMITTEE

The Nominating Committee met in Room 365 in the Muehlebach Hotel at 8:30 AM on April 3, 1970 with all members present. The Committee submits the following slate of nominees for approval by the Association:

Vice-President—Dr. Rolla B. Wray, Nevada
Vice-President—Dr. John R. Dixon, Brookfield
Vice-President—Dr. C. Howe Eller, St. Louis County
AMA Delegate—Dr. Stanley S. Peterson, Springfield
Alternate AMA Delegate—Dr. James C. Sisk, St. Louis County
AMA Delegate—Dr. J. Loren Washburn, Versailles
Alternate AMA Delegate—Dr. Rae W. Froelich, Lebanon
Speaker of the House—Dr. Elvin D. Imes, Maryville
Vice-Speaker of the House—Dr. Robert A. Slickman, Kansas City

Mr. Speaker, I move the adoption of this report.

The Speaker invited additional nominations from the floor. Hearing none, he entertained a motion that nominations cease and that a unanimous ballot be cast for the slate as presented by the Nominating Committee. The motion was seconded and approved.

Dr. John I. Matthews, Secretary, announced that the following Councilors had been elected for two-year terms:

Dr. Walter T. Gunn, Third District
Dr. James C. Cope, Fifth District
Dr. R. Allen Chandler, Seventh District
Dr. E. A. Stricker, Ninth District

The Speaker called for additional reports of the Reference Committees.

Dr. Blaine Hibbard, Chairman, was invited to present the additional report of the Committee on Constitution and By-Laws.

CONSTITUTION AND BY-LAWS

The resolution which would change the date in the By-Laws for determining the number of Delegates and Alternate Delegates to the MSMA is now being resubmitted by the Committee to the House for a second vote after being tabled at the Second Session. The *Resolve* reads as follows:

> *Resolved*, That the MSMA shall count the members of each society on September 30 of each year, and prior to October 10, of that same year notify each society of how many Delegates and Alternate Delegates are to be selected by the various societies and recognized as official Delegates from that society.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was seconded and after a discussion was defeated, since it did not achieve the required two thirds majority vote.)

The Committee recommends for approval the Council-Amended and -Approved report of the Committee on Constitution and By-Laws which concerns the new structure for MSMA committees and commissions.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed unanimously.)

Resolution—Full Membership for Osteopathic Physicians

The Committee recommends for approval the Resolution for Full Membership for Osteopathic Physicians.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed by a two-third majority vote.)

Mr. Speaker, I move the adoption of this report as a whole.

(The motion was seconded and approved.)

Dr. Frank Matteson, Chairman, was invited to present the additional report of the Reference Committee on Reports of Officers.

REPORTS OF OFFICERS

The Reference Committee on Reports of Officers met in session in the Colonial Ballroom in the Hotel Muehlebach at 7:05 PM on April 3, 1970 with all but one member present.

Resolution—Public Information Concerning Health Care Costs

The resolution from St. Louis Medical Society concerning information for the public concerning health care costs was recommended for approval by the Committee.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution—Ad Hoc Committee to Study District Status

The resolution from St. Louis and St. Louis County Medical Societies regarding an Ad Hoc Committee to Study District Status was rejected by the Committee.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Mr. Speaker, I move the adoption of this report as a whole.

After humorously pointing out that he "had not been impeached or overruled" and expressing his appreciation to the House of Delegates for their cooperation during his terms of office as Speaker, Dr. Paul F. Max *(left)* presented his gavel to newly-elected Speaker of the House E. D. Imes and wished him well.

The 112th MSMA Annual Session has just adjourned and it's time to initiate plans for the coming year. President Joseph L. Fisher offers suggestions to Council Chairman Walter T. Gunn, President-Elect Gerald L. Miller and Council Vice-Chairman E. A. Stricker.

(The motion was seconded and carried.)

This concluded the reports of the Reference Committees.

At this time, the Speaker invited nominations for the office of President-Elect. Dr. Robert W. Forsythe nominated Dr. Gerald L. Miller of Kansas City. The nomination was seconded by Dr. Joseph Edwards. There being no additional nominations, it was moved and seconded that nominations cease and Dr. Miller was elected by unanimous vote. The new President-Elect was escorted to the Speaker's stand where he made a brief acceptance statement.

The Speaker then invited the Officers and Councilors to come to the front of the room where the Association Secretary, Dr. John I. Matthews, administered the oath of office.

The Speaker invited President Joseph L. Fisher to announce his committee appointments for the 1970-1971 year. Dr. Fisher stated that he deferred appointments until final action of the House of Delegates concerning the change in By-Laws which would effect the structure of MSMA committees and commissions.

(President Fisher's committee appointments will be published in the July 15 Roster Issue of Missouri Medicine.—Ed.*)*

Dr. Joseph Edwards, speaking for the St. Louis and St. Louis County Medical Societies, invited the Association to hold the 1971 Annual Session in St. Louis. The invitation was accepted.

The Speaker announced that the next Annual Session of the Missouri State Medical Association will be held on April 15-18, 1971 at the Chase Hotel in St. Louis.

There being no additional business, the Speaker declared the 112th Annual Session adjourned.

ACCIDENT AND HEALTH INSURANCE

The Missouri State Medical Association since 1943 has made available to its members a Special Disability Income Benefits Policy issued by our "Loyalty Group" Companies now a part of the America Fore-Loyalty Group Insurance Companies—the largest casualty-fire underwriting group in the world. The low cost at which the policy is offered is made possible through the purchasing power of the membership of your association as a whole.

Now, new plans offering long term income benefits as well as a special Major Hospital-Nurse Expense Plan have been added to the program. We suggest you who are already enrolled make sure your policy includes the maximum benefits. Those of you not enrolled, we suggest you do so today. Call or write:

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(Eastern Missouri Administrators)

Altman-Singleton & Co.
114 W. 10th St., Kansas City, Mo. 64105
(Western Missouri Administrators)

REGISTRATION AT THE 112TH ANNUAL SESSION

First Councilor District—60

Arst, H. E., N. Kansas City
Atcheson, W. B., Trenton
Baker, W. C., Savannah
Banks, Frank R., Smithville
Bauman, Henry C., Maryville
Beck, Paul M., St. Joseph
Bohnsack, Ralph W., Brookfield
Boone, Daniel C., N. Kansas City
Bowles, Richard P., Liberty
Bristow, Robert, St. Joseph
Butler, E. F., St. Joseph
Craig, Owen, St. Joseph
Conrad, Joseph A., Chillicothe
Cook, Jerry, Kansas City
Cross, Albert D., Trenton
Daley, Frank R., Hamilton
Deligeorges, John, Kansas City
Dixon, John R., Brookfield
Dowell, D. M., Chillicothe
Edwards, T. F., N. Kansas City
Fisher, Joseph L., St. Joseph
Fuson, L. H., St. Joseph
Gearhart, Merriam, Bethany
Gilliland, Charles E., Cameron
Goldberg, I. E., Braymer
Hayes, Paul W., St. Joseph
Herman, Allen I., St. Joseph
Howell, B. D., Brookfield
Imes, Elvin D., Maryville
Jackson, W. R., Maryville
Kieber, Robert W., St. Joseph
King, Phillip E., Liberty
Kline, Carlyn M., St. Joseph
Kline, Edmund W., St. Joseph
Knepper, Paul A., St. Joseph
Kuenzi, D. E., Kansas City
McCracken, S. R., Excelsior Springs
McDonald, Wilbur P., St. Joseph
McPhee, W. R., Kansas City
Mandler, George, Chillicothe
Martin, John, St. Joseph
Matteson, Frank B., Grant City
Morgan, Troy, Albany
Mundy, H. F., St. Joseph
Nixon, Edward E., Gallatin
O'Brien, Liam, St. Joseph
Ozenberger, Larry A., Plattsburg
Petersen, H. E., St. Joseph
Redmond, William, St. Joseph
Riddell, Richard V., St. Joseph
Rogers, John T., St. Joseph
Rosenthal, Irwin I., St. Joseph
Rost, William B., St. Joseph
Ryan, J. H., St. Joseph
Schertz, T. B., N. Kansas City
Sklenar, Don, St. Joseph
Shevlin, Charles F., St. Joseph
Soper, Wm. D.. Excelsior Springs
Vinyard, Jack L., Carrollton
Wolfram, Philip H., Platte City

Second Councilor District—15

Barnett, F. A., Paris
Davis, Landis Y., Canton
Dreyer, Philip V., Huntsville
Eggleston, Donald E., Macon
Fischer, Thomas J., Hannibal
Fleming, J. Will, Moberly
Fleming, Thomas S., Moberly
Foreman, Phillip B., Hannibal
Grant, Albert J., Hannibal
Huber, Lasley E., Moberly
Lewellen, Charles H., Louisiana
Mann, James K., Hannibal
Plowman, Edward M., Hannibal
Tompson, Robert V., Moberly
Walterscheid, J., Hannibal

Third Councilor District—84

Auer, Edward T., St. Louis
Backer, Matt H., Jr., St. Louis
Beis, Louis D., St. Charles
Boedeker, Roy V., St. Louis
Bowen, S. F., Jr., St. Louis
Bradley, Richard V., Clayton
Brennan, Robert V., Kirkwood
Bruce, Helen L., St. Louis
Bruns, Kenneth, St. Louis
Bryan, James H., Clayton
Carlin, M. Richard, St. Louis
Cavanagh, Denis, St. Louis
Collins, John A., St. Louis
Conrad, Marshall B., St. Louis
Cooper, T. J., St. Louis
Costello, Cyril, St. Louis
Dames, Richard, St. Louis
Danforth, William H., St. Louis
Drews, Robert C., Clayton
Eagleton, Mark D., Clayton
Edwards, Joseph C., St. Louis
Felix, Robert H., St. Louis
Finnegan, Joseph V., St. Louis
Ford, Lee T., St. Louis
Franklin, Max S., St. Louis
Friedman, Paul L., St. Louis
Geise, August W., St. Louis
Gnade, Albert J., St. Louis
Gulick, Charles R., St. Louis
Gunn, Walter T., St. Louis
Guze, S. B., St. Louis
Hall, Lee A., St. Louis
Haddock, James N., Clayton
Hamilton, E. G., Clayton
Hawkins, George L., Jr., Webster Groves
Herman, Morris, St. Louis
Jones, Otey S., St. Louis
Jost, Charles, St. Louis
Judd, Donald, St. Louis
Kaskie, C. R., Clayton
Kellett, John G., St. Louis
Kelley, Robert W., St. Louis
Kerr, David N., University City
Kinsella, Edward D., St. Louis
Komanetsky, W. M., St. Louis
Lawton, L. M., St. Louis
Lewis, J. Eugene, St. Louis
Lieb, Francis X., St. Louis
Lonsway, Maurice J., St. Louis
Macdonald, William C., St. Louis
Macon, William L., Jr., St. Louis
Manansala, Antonio Q., St. Louis
Max, Paul F., St. Louis
Morris, Mary E., St. Louis
Mueller, Robert, St. Louis
Neilson, Arthur W., St. Louis
Nester, C. A., St. Louis
Nicolai, Charles H., St. Louis
Olmsted, W. H., St. Louis
O'Reilly, D. Elliott, St. Louis
Pennington, F. Eugene, St. Louis
Ramsey, Robert H., Ferguson
Raybuck, Harry E., St. Louis
Ritter, H. A., St. Louis
Rosenfeld, Henry, St. Louis
Sciortino, John S., Ladue
Scopelite, Joseph A., St. Louis
Sexton, Daniel L., Clayton
Sherwin, Charles S., St. Louis
Smiley, William, St. Louis
Smith, Kenneth, St. Louis
Smith, Robert S., St. Louis
Soule, S. D., St. Louis
Stoneman, William, St. Louis
Turner, C. M., St. Louis
Vacca, Joseph B., St. Louis
Wacker, Leo L., St. Louis
Walters, W. H., St. Louis
Whittico, James M., St. Louis
Wiegand, Herbert C., St. Louis
Williams, Carol F., St. Louis
Willman, V. L., St. Louis
Wolfgram, Edwin D., St. Louis
Yore, Richard W., St. Louis

Fourth Councilor District—42

Barden, Frank W., St. Louis
Boles, C. Read, Clayton
Bolinske, Robert E., St. Louis
Bonney, S. C., Washington
Catanzaro, Rudolph, St. Louis
Cowdry, E. V., St. Louis
Diehr, M. A., St. Louis
Donnell, Harold E., De Soto
Duffy, Adrian D., St. Louis
Eller, C. Howe, St. Louis
Fairshter, Alex E., St. Louis
Gray, Walter C., St. Louis
Hammes, Bob, St. Charles
Hetlage, Louis P., Troy
Hoelscher, Harold F., Warrenton
Klippel, Allen P., Clayton
Kopp, Jules H., St. Louis
Magness, Guy N., University City
Mattis, Robert Dean, St. Louis
Mayer, Robert A., St. Louis
Mczera, R. A., St. Louis
Miles, Paul W., St. Louis
Miller, Charles, Kirkwood
Moellenhoff, Robert, Washington
Nakada, James R., Clayton
Peterson, Frederick D., St. Louis
Rice, Carl E., Crystal City
Richardson, W. R., Union
Rother, Paul H., St. Charles
Rutledge, John F., Crystal City
Schwartz, Melvin M., St. Louis
Sisk, James C., Clayton
Stein, H. J., St. Louis
Sutter, Richard A., St. Louis
Valach, Frank J., Brentwood
Vitale, N. S., St. Louis
Whitener, Miles C., St. Louis
Whitener, Paul R., St. Ann
Workman, George, Hermann
Wulff, George, Jr., St. Louis
Wyatt, Lois C., Kirkwood
Yap, Mardonio J. R., St. Louis

Fifth Councilor District—62

Allen, William C., Columbia
Anderson, I. A., Columbia
Asel, Norman D., Columbia
Baker, A. Sherwood, Columbia
Belden, E. A., Jefferson City
Black, Samuel P. W., Columbia
Bloom, W. A., Fayette
Bregant, Robert, Jefferson City
Buesseler, John A., Columbia
Cooper, Charles W., Jefferson City
Cope, James C., Columbia
Ekern, H. Peter, Mexico
Exon, C. S., Jefferson City
Garner, Lynn, Jefferson City
Gaunt, William D., Columbia
Gentry, M. L., Jefferson City
Griffin, William T., Columbia
Guhleman, Henry V., Jr., Jefferson City
Hall, David G., Columbia
Hardwicke, H. M., Ashland
Hart, William M., Columbia
Jackson, Robert L., Columbia
Jolly, Ben N., Mexico
Kauffman, Ruth, Versailles
Keown, Kenneth, Columbia
Lankford, Harold D., Mexico
Litwiller, R. W., Columbia
Logue, John T., Columbia
Lucas, Fred V., Columbia
Lyle, Ray, Versailles
Matthews, John, Jefferson City
Mayer, William D., Columbia
Meier, Francis X., Jefferson City
Metzgar, Marshall T., Columbia
Miller, LeRoy J., Columbia
Mitchell, Frank L., Columbia
Moranville, B. A., Columbia
Neal, M. Pinson, Columbia
Nieuwenhuizen, Maarten, Columbia
Overholser, M. D., Columbia
Pingelton, W. B., Columbia
Rall, Kenneth L., Columbia
Ritterbusch, James K., Fulton
See, William B., Columbia
Shaw, William J., Fayette
Sights, W. P., Columbia
Spratt, John S., Jr., Columbia
Stauffer, H. B., Jefferson City
Stephenson, Hugh E., Jr., Columbia
Stewart, William J., Columbia
Stuart, Byron M., Boonville
Sydow, Henry A., Fulton
Tanner, Robert H., Jefferson City
Thomas, H. E., Columbia
Wakerlin, George E., Columbia
Walters, John H., Columbia
Walters, Laura, Columbia
Washburn, J. Loren, Versailles
Watson, Trevor F., Columbia
Watts, Byron E., Jefferson City
Wilson, George P., Columbia
Wood, George F., Fulton

Sixth Councilor District—35

Aiken, George A., Marshall
Blalock, Robert W., Marshall
Bradshaw, W. D., Clinton
Brady, H. S., Concordia
Campbell, Albert J., Sedalia
Cook, Thomas B., Richmond
Cope, J. S., Lexington
Eklund, A. W., Pleasant Hill
Folkner, A. L., Warrensburg
Giesler, D. H., Osceola
Gonser, Karl B., Sedalia
Hansen, A. L., Butler
Haynes, Robert C., Marshall
Huber, K. H., Richmond
Johnson, C. S., Warrensburg
Jones, Keith D., Warrensburg
Kelling, Jordan, Waverly
King, Richard H., Clinton
Knipschild, B. F., Marshall
Lederer, Charles M., Warrensburg
Long, Curtis W., Butler
McBurney, C. Alex, Slater
Magee, Robert L., Eldorado Springs
Pascoe, James J., Nevada
Pearse, Roy W., Jr., Nevada
Raynor, Richard, Marshall
Reid, James A., Marshall
Richter, W. B., Stockton
Riley, Charles T., Richmond
Stauffacher, C. Gordon, Sedalia
Thies, Jerome H., Osceola
Torontow, R. John, Nevada
Watson, Cecil L., Marshall
Worley, Charles A., Sweet Springs
Wray, Rolla B., Nevada

Seventh Councilor District—149

Abella, Ben, Kansas City
Allen, William B., Kansas City
Anderson, Raymond B., Kansas City
Arms, Arnold, Kansas City
Atcheson, Bellfield, Kansas City
Atwell, Floyd C., Kansas City
Baer, A. J., Kansas City

Barelli, Pat A., Kansas City
Barnard, John L., Kansas City
Barnett, Gordon P., Shawnee Mission, Kan.
Becker, Richard R., Kansas City
Benoit, Hector W., Jr., Kansas City
Berry, Maxwell G., Kansas City
Berry, Neill, Kansas City
Bills, Marvin L., Shawnee Mission, Kan.
Boughnou, H. P., Kansas City
Boutros, Amin, Kansas City
Bowser, John F., Kansas City
Brams, Jack B., Kansas City
Brown, Robert S., Kansas City
Brumm, Lawrence W., Kansas City
Bruner, Robert E., Kansas City
Buckingham, Wm. W., Kansas City
Buhler, Victor B., Kansas City
Caldwell, John K., Kansas City
Centner, Paul J., Kansas City
Carlson, Hjalmar, Kansas City
Case, William F., Kansas City
Chambers, James Q., Kansas City
Coffey. Ralph R., Kansas City
Connell, Evan S., Kansas City
Curran, Desmond, Shawnee Mission, Kan.
Curts, Calvin J., Kansas City
Eanet, Morton P., Kansas City
Elliott, R. Glenn. Kansas City
Engelking, David F., Raytown
Engelmann, C. E., Kansas City
Eshelman, Albert D., Independence
Eubank, Dillard M., Raytown
Eubank, Will R., Kansas City
Evans, Lawrence L., Kansas City
Flanders, V. E., Kansas City
Forsythe, Robert W., Kansas City
Fowler, Fred D., Kansas City
Frick, J. Paul, Kansas City
Gainey, Harold L., Kansas City
Ganley, W. C., Kansas City
Goldstein, Marvin F., Kansas City
Gottsch, Joseph C., Kansas City
Graham, Wallace H., Kansas City
Greene, W. Wallace, Kansas City
Gregory, Ralph W., Kansas City
Griffith, John A., Kansas City
Haight, J. M., Kansas City
Hall, Ralph R., Kansas City
Hamtil, Lawrence W., Prairie Village, Kan.
Hannas, R. R., Kansas City
Hibbard, Blaine Z., Kansas City
Hickerson, William H., Independence
Hoeper, Sam D., Grandview
Hollweg, Kenneth C., Kansas City
Hungate, Carroll P., Kansas City
Huse, William J., II, Kansas City
Hyde L. L., Kansas City
Jansen, Robert, Kansas City
Jonas, Harry S., Independence
Jones, Samuel T., Kansas City
Kelling, Douglas, Kansas City
Kernodle, J. D., Kansas City
Kiene, Richard H., Kansas City
Knight, John S., Kansas City
Koontz, Paul G., Jr., Kansas City
Kyger, John, Independence
Lambie, Rodger W., Kansas City
Lanning, Richard J., Kansas City
Leitch, C. G., Blue Springs
Leo, William A., Kansas City
Lindgren, Carlcton J., Kansas City
Linville, Howard E., Kansas City
Long, R. Stacy, Kansas City
Lytton, George, Kansas City
MacInnis, Florence S., Kansas City
McCanse, Andrew, Kansas City
McDonald, V. G., Jr., Kansas City
McDonnell, John F., Kansas City
McFarland, M. Donald, Kansas City
McKee, Wallace P., Kansas City
McVay, James R., Kansas City
McVay, James R., Jr., Kansas City
Masucci, Joseph, Kansas City
Melgaard, S. Ross, Kansas City
Meyer, Paul W. Kansas City
Miller, Gerald L., Kansas City
Mixson, William C., Kansas City
Montello, Sam, Kansas City
Moore, Robert A., Kansas City
Moreano, Armando H., Kansas City
Morley, Louise A., Shawnee Mission, Kan.
Mullen, Leo M., Kansas City
Muth, Robert G., Leawood, Kan.
Noback, R. K., Kansas City
Ost, Mark D., Kansas City
Perry, Ralph. Kansas City
Petersen, Arthur Gene, Kansas City
Peterson, Carl M., Kansas City
Potter, Lee G., Kansas City
Pucci, Gregory L., Kansas City
Puls, Jerry L., Overland Park, Kan
Reister, Dorothy D., Shanwee Mission, Kan.
Reister, Philip D., Kansas City
Rubin, Sidney, Kansas City
Sabates, Felix N., Kansas City
Samuelson, Edward A., Kansas City
Sanders, William F., Kansas City
Santoro, C. G., Kansas City
Sasano, Joseph R., Jr., Prairie Village Kan.
Schillie, Gene A., Kansas City
Shelden, Russell D., Kansas City
Slickman, R. A., Kansas City
Smith, O. Dale, Kansas City
Spalding, Wilber B., Jr., Kansas City
Spencer, Donald M., Raytown
Stacey, W. R., Independence
Staggs, William A., Kansas City
Statland, Morris, Kansas City
Staley, Harry R., Kansas City
Stelmach, Walter J., Kansas City
Stockton, Raymond W., Kansas City
Stratemeier, E. H. Overland Park, Kan.
Tarson, Solomon S., Overland Park, Kan.
Tesson, J. A., Kansas City
Thiele, George H., Kansas City
Thomas, Christopher, Kansas City
Tice, Wayne K., Indendence
Trowbridge, B. C., Kansas City
Underwood, Dick H., Kansas City
Vaughn, James W., Kansas City
Voth, Harold W., Kansas City
Wade, Frederick E., Kansas City
Wakefield, F. H., Leawood, Kan.
Wall, Leonard A., Kansas City
Weltscheff, C. H., Kansas City
Wheeler, Charles B., Kansas City
Whittaker, C. Keith, Kansas City
Wicks, Edwin O., Kansas City
Wilhelm, Warren F., Kansas City
Williams, T. A., Kansas City
Wortmann, R. F., Kansas City
Young, Paul R., Kansas City

Eighth Councilor District—53

Anderson, Paul B., Neosho
Anthony, Dallas D., Springfield
Bonebrake, M. D., Springfield
Brasher, Charles A., Mt. Vernon
Brown, James T., Springfield
Burns, T. J., Springfield
Chase, Ned B., Jr., Joplin
Dillard, Erin M., Springfield
Esther, John R., Joplin
Farthing, Gene W., Springfield
Ferrell, Thomas E., Springfield
German, Walter A., Springfield
Glover, Kenneth, Mt. Vernon
Graves, Arthur, Mt. Vernon
Hall, David W., Springfield
H'Doubler, Charles, Springfield
H'Doubler, F. T., Springfield
Holmes, Daniel E., Springfield
Hubbard, Sally L., Springfield
Hurst, W. W., Joplin
Ivy, Berry, Springfield
Lewis, Noel R., Springfield
Litton, Lyle D., Springfield
Lockhart, Charles, Springfield
Macdonnell, T. M., Marshfield
McAlhany, Howard, Springfield
McCraw, Doyle C., Bolivar
McNeel, Lee A., Jr., Greenfield
Maher, Robert W., Springfield
Menchetti, Don, Springfield
Merideth, Mary, Cassville
Moore, Allen H., Jr., Branson
Papp, Sandor D., Joplin
Peterson, Stanley S., Springfield
Prater, B. G., Springfield
Roper, Stanley D., Ozark
Rosen, Max, Springfield
Schmidt, Herbert J., Joplin
Schroff, Carle, Springfield
Smith, C. Souter, Springfield
Snead, William H., Springfield
Spalding, David L., Springfield
Tarrasch, Ernest L., Springfield
Tavlor, L. T., Neosho
Tillman, Walter W., Jr., Springfield
Trotter, W. Yates, Springfield
Turner, Glenn O., Springfield
Walker, William M., Springfield
Whitten, M. Foster, Carthage
Wittmer, S. C., Springfield
Wommack, Fred L., Crane
Wood, George H., Carthage
Yancey,Daniel L., Springfield

Ninth Councilor District—9

Bass, B. J., Salem
Cooper, C. W., Thayer
Froelich, R. W., Lebanon
Hasek, James A., Mountain Grove
Miller, Harold W., Willow Springs
Morgan, W. T., Jr., West Plains
Smith, Rollin H., West Plains
Stricker, E. A., St. James
Wall, Joe H., Houston

Tenth Councilor District—22

Alyea, James O., Cape Girardeau
Burford, E. K., Jr., Cape Girardeau
Camp, Richard V., Jr., Poplar Bluff
Chastain, C. W., Farmington
Cozean, Charles H., Jr., Cape Girardeau
Crowe, John T., Cape Girardeau
Dettmer, Robert F., Ironton
Estes, Albert M., Cape Girardeau
Farmer, Norma D., Farmington
Ferguson, Wilson J., Sikeston
Fraser, Richard A., Bonne Terre
Hansbrough, E. T., Poplar Bluff
Holcomb, John K., Cape Girardeau
Jung, J. Marshall, Columbia
Kasten, Melvin C., Cape Girardeau
Ladyman, George, Poplar Bluff
McGinty, Charles P., Cape Girardeau
Nunnelly, Gordon M., Cape Girardeau
Osborn, Retus W., Farmington
Ruff, T. E., Poplar Bluff
Sandidge, E. L., New Madrid
Turner, Kirby L., Potosi

Guest Physicians—41

Arribas, Romeo, Kansas City
Becker, L. H., Blackwell, Okla.
Cannady, E. W., E. St. Louis
Carvalho, Paulo De, Kansas City
Comerci, George D., Tucson, Ariz.
Cowan, George A., Kansas City Kan.
De Bakey, Michael E., Houston, Tex.
Dimond, E. Grey, Kansas City
Farrington, J. D., Minocqua, Wis.
Ginder, David R., Columbia
Godfrey, William A., Overland Park, Kan.
Gonzales, F. M., New Orleans, La.
Hernandez, Rafael M., Kansas City
Hiebert, John, Kansas City, Kan.
Hiatt, W. Stewart, Kansas City
Hughes, Carl W., Washington, D. C.
Jackson, Francis, Pittsburgh, Pa.
Jones, Robert S., Kansas City
Kantrowitz, Adrian, Brooklyn, N. Y.
Keeney, A. H., Philadelphia, Pa.
Lambert, Joseph, Columbia
Lober, Marianne, Kansas City
Lockwood, R. A., Overland Park, Kan.
Masterson, J. F., New York, N. Y.
Miciano, Ruel, Kansas City
Morris. Len W., Minot AFB, N. D.
Neighbor, Gaylord P., Kansas City, Kansas
Neustadt, David H., Louisville, Ky.
Pepper, Max, St. Louis
Plager, Steve, Kansas City, Kan.
Quertermous, John C., Murray, Ky.
Rao, V. Padmanabha, Kansas City
Rose, Norman A., St. Louis
Russell, Keith P., Los Angeles, Calif.
Sonnenblick, Edmund H., Boston, Mass.
Spain, David M., Brooklyn, N. Y.
Sullivan, Paul V., Columbia
Tapid, Fernando, Columbia
Wallace, Darryl, Kansas City
Webb, Robert, Columbia
Wood, Harold, Houston, Tex.

There were 531 members, 41 guest physicians, 158 exhibitors, 133 medical technologists, 182 Woman's Auxiliary Members and 29 guests registered making a total registration of 1,074.

112TH ANNUAL SESSION EXHIBITORS

Abbott Laboratories, North Chicago, Ill.
Altman-Singleton & Company, Kansas City
American Medical Facilities Corporation, St. Louis
Apache Corporation, Minneapolis, Minn.
Arnar-Stone Laboratories, Inc., Mount Prospect, Ill.
Astra Pharmaceutical Products, Inc., Worcester, Mass.
Ayerst Laboratories, New York, N. Y.
Blue Cross and Blue Shield, Kansas City
Bristol Laboratories, Syracuse, N. Y.
Casualty Indemnity Exchange, Denver, Colo.
Ciba Pharmaceutical Company, Summit, N. J.
Coca-Cola USA, Atlanta, Ga.
Cole Pharmacal Company, Inc., St. Louis
Data Service Agency, Inc., St. Louis
D. M. Doyle Pharmaceutical Company, Minneapolis, Minn.
Eaton Laboratories, Norwich, N. Y.
The Emko Company, St. Louis
Encyclopaedia Britannica, Inc., Chicago, Ill.
Endo Laboratories Inc., Garden City, N. Y.
Hoechst Pharmaceutical Company, Cincinnati, Ohio
Knoll Pharmaceutical Company, Orange, N. J.
Eli Lilly and Company, Indianapolis, Ind.
Mead Johnson Laboratories, Evansville, Ind.
The Medical Protective Company, Fort Wayne, Ind.
Merck Sharp & Dohme, West Point, Pa.
Miller Pharmacal Company, St. Louis
Missouri Regional Medical Program-Missouri Heart Association, Springfield
North American Pharmacal, Dearborn, Mich.
Ortho Pharmaceutical Corporation, Raritan, N. J.
Parke, Davis & Company, Detroit, Mich.
Philips Roxane Laboratories, Inc., Columbus, Ohio
Postal Investment Company, Inc., Jefferson City
Wm. P. Poythress & Co., Inc., Richmond, Va.
Reid-Provident Laboratories, Inc., Atlanta, Ga.
Ross Laboratories, Columbus, Ohio
Rowell Laboratories, Inc., Baudette, Minn.
Sandoz Pharmaceuticals, Hanover, N. J.
W. B. Saunders Company, Philadelphia, Pa.
G. D. Searle & Co., Chicago, Ill.
Seven-Up Bottling Company, St. Louis
Siemens Corporation, Rosemont, Ill.
Smith Kline & French Laboratories, Philadelphia, Pa.
E. R. Squibb & Sons, Inc., New York, N. Y.
Stroke Diagnosis—Bi-State Regional Medical Program, St. Louis
Stuart Division/Atlas Chemical Industries, Inc., Pasadena, Calif.
United Medical Equipment Co., Kansas City
The Upjohn Company, Kalamazoo, Mich.
Warner-Chilcott Laboratories, Morris Plains, N. J.
Warren-Teed Pharmaceuticals, Inc., Columbus, Ohio

HIGHLAND HOSPITAL

ASHEVILLE, NORTH CAROLINA

FOUNDED 1904

A DIVISION OF THE DEPARTMENT OF PSYCHIATRY OF DUKE UNIVERSITY

Accredited by the Joint Commission on Accreditation and Certified for Medicare

Complete facilities for evaluation and intensive treatment of psychiatric patients, including individual psychotherapy, group therapy, psychodrama, electro-convulsive therapy, Indoklon convulsive therapy, drugs, social service work with families, family therapy and an extensive and well organized activities program, including occupational therapy, art therapy, music therapy, athletic activities and games, recreational activities and outings. The treatment program of each patient is carefully supervised in order that the therapeutic needs of each patient may be realized.

High school facilities for a limited number of appropriate patients are now available on grounds. The School Program is fully integrated into the hospital treatment program and is accredited through the Asheville School System.

Complete modern facilities with 85 acres of landscaped and wooded grounds in the City of Asheville.

Brochures and information on financial arrangements available

Contact: (1) Mrs. Elizabeth Harkins, ACSW, Coordinator of Admissions

or

(2) Samuel N. Workman, M.D.
Chief of Clinical Services

(3) Charles W. Neville, Jr., M.D.
Assistant Professor of Psychiatry
and Medical Director

Area Code 704-254-3201

Missouri State Medical Foundation

Minutes of the Annual Meeting
Hotel Muehlebach, Kansas City
Friday, April 3, 1970

The meeting was called to order by Paul R. Whitener, M.D., President, at 5 PM. A quorum was declared present. Dr. Whitener stated that the minutes of the 1969 Annual Meeting in St. Louis immediately following the Friday afternoon, March 21 session of the MSMA House of Delegates had been published in the July, 1969 issue of MISSOURI MEDICINE. He called for any additions or deletions to the minutes. There being none, the minutes of the 1969 meeting were declared approved as published.

Dr. Whitener noted that an article supporting the MSMF had been published in the Auxiliary's bulletin, *Missouri Doctor's Wife*, in February, 1970.

Dr. Whitener stated that the Woman's Auxiliary has undertaken a program to raise additional funds for the Foundation and expressed appreciation for the interest and generosity of the Auxiliary members.

Dr. Whitener directed attention to the financial statement of the Foundation as of Jan. 31, 1969, a copy of which was offered to those in attendance and which reads as follows:

FINANCIAL STATEMENT FOR THE YEAR 1969

LENNERTSON & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
ST. LOUIS, MISSOURI 63105

January 27, 1970

Missouri State Medical Foundation
515 East High Street
Jefferson City, Mo. 65101

Gentlemen:

The records of the Missouri State Medical Foundation, a nonprofit Missouri corporation, were reviewed for the year 1969. The Balance Sheet at December 31, 1969 is on a cash basis and the additions for the year are set forth in Exhibit A.

Recorded receipts for the year were traced in total into the bank account as deposits and paid checks were seen for the disbursements. A direct confirmation was received from the depositary in verification of the cash balances on deposit.

A summary of the loans to medical students follows:

Loans Receivable January 1, 1969	$263,345.10
Loans made during the year	41,070.00
Total	$304,415.10
Less Loan Repayments	8,843.11
Loans Receivable December 31, 1969	$295,571.99

Individual records of loans were reviewed and student loan contracts were inspected. The Foundation carried insurance on the lives of students to assure repayment of the loans in the event of death. One loan in the amount of $500.00 plus accrued interest of $7.50 was paid by the insurance company. Interest income on loans is recorded on a cash basis and the amount received in 1969 was $1,571.67. Accrued interest on outstanding loans at December 31, 1969 amounted to $21,895.71 and is not included in the loan balances in Exhibit A.

EXHIBIT A

MISSOURI STATE MEDICAL FOUNDATION

Balance Sheet (Cash Basis), December 31, 1969

Assets

Cash in Checking Account	$ 27,322.70
Savings Account	5,292.47
Certificate of Deposit due Jan. 6, 1970	19,083.51
Loans Receivable from Medical Students	285,571.99
Total Assets	$347,270.67

Fund Reserve

Balance January 1, 1969		$307,310.08

Cash Additions for the Year 1969

Interest on Loans	$ 1,571.67	
Interest on Bank Deposits	1,149.27	
Contributions (see below)	2,675.50	
Assessments of Members—Active $10.00; Junior $5.00	34,564.15	
Total for year 1969		39,960.59
Total Reserve		$347,270.67

Contributions

Audrain County Medical Society, Mexico, Mo.	$ 170.00
Boonville Medical Group, Boonville, Mo.	100.00
Albert D. Cross, M.D., Trenton, Mo.	100.00
Max S. Franklin, M.D., St. Louis, Mo.	100.00
Samuel K. Lewis, M.D., Elmhurst, Ill.	200.00
Long's Drug Store, Boonville, Mo.	100.00
Doyle C. McGraw, M.D., Bolivar, Mo.	100.00
St. Charles-Lincoln Medical Society, St. Charles, Mo.	500.00
South Central Counties Medical Society	100.00
West Central Missouri Medical Society, Nevada, Mo.	100.00
Paul R. Whitener, M.D., St. Louis, Mo.	250.00
Woman's Auxiliary, Jackson County Medical Society, Kansas City, Mo.	150.00
Woman's Auxiliary to M.S.M.A., Jefferson City, Mo.	100.00
Woman's Auxiliary, Boone County, Columbia, Mo.	200.00
Sub-total	$2,270.00
Contributions under $100 each	405.50
Total Contributions	$2,675.50

Interest received on the savings account and the certificate of deposit amounted to $1,149.27. The certificate of deposit due January 6, 1970 was renewed for six months and interest of $477.08 was received.

The Missouri State Medical Association paid expenses for the Foundation as follows:

State Registration Fee	$ 1.00
Professional Fees	400.00
Insurance Premium	1,713.82
Printing	28.84
Total	$2,143.66

These amounts have not been recorded as receipts and disbursements on the records of the Foundation.

U. S. Treasury Department form 990A has been prepared for the year 1969 and is due for filing on May 15, 1970.

No opinion is expressed on the attached statement as it is on a cash basis and student loan balances were not verified by direct confirmation.

Yours very truly,
LENNERTSON & CO.
Certified Public Accountants

(The following report was made subsequent to the above audit.)

Balance on hand, 12-31-69	$27,332.70
January loans 1970 (spring) Number of loans—35	24,300.00
	$ 3,032.70
Income January 1970	2,982.71
	$ 6,015.41

Dr. Whitener called for the next order of business which was the election to the Board of Trustees. Max S. Franklin, M.D., St. Louis, was reelected by acclamation to a five-year term on the Board of Trustees of the Missouri State Medical Foundation, a nonprofit organization which makes educational loans to medical students who are residents of Missouri. Dr. Joseph L.

Fisher, St. Joseph, becomes an ex-officio member of the Board as incoming President of the Missouri State Medical Association.

The motion was introduced to increase the interest rates for student loans as follows: the 2% interest rate would prevail for two years and would increase to 4% the third year, to 6% the fourth year and to 8% the fifth year and thereafter. The motion was seconded and approved. It was noted that the new interest rates would apply to new loans only.

Dr. Whitener then called for any other business to come before the meeting. There being none, he announced that a short meeting of the MSMF Board of Trustees would follow immediately after the adjournment of the MSMF Annual Meeting.

The meeting was adjourned.

Minutes of the MSMF Board of Trustees Meeting Hotel Muehlebach, Kansas City Friday, April 3, 1970

The meeting of the Board of Trustees of the MSMF was called to order by Paul R. Whitener, M.D., President, immediately following the adjournment of the Annual Meeting.

Dr. Whitener explained that the purpose of the meeting was to elect officers. He asked Dr. David N. Kerr to report on nominations. On motion by Dr. Kerr, duly seconded, all officers were reelected by acclamation. They are Paul R. Whitener, M.D., St. Louis County, President of the Board; Albert Cross, M.D., Trenton, Vice-President; and Charles R. Doyle, M.D., St. Louis, Secretary-Treasurer.

Mr. Thomas P. Fox was reappointed Assistant Secretary and will assist in the administration of the Foundation's program.

The next order of business was the selection of a method for solicitation of contributions from the full membership of the MSMA. It was reported that in 1968 and 1969, a solicitation letter was published in Missouri Medicine with resulting contributions of $2,106.50 and $2,675.50, respectively. Results now exceed contributions made by way of a full membership mailing of prior years and it was decided that publication of a letter in Missouri Medicine be approved for 1970.

There being no further business, the Board meeting was declared adjourned.

Give now...

to your
medical student
loan fund.
Help deserving
young Missourians!

Missouri State Medical Foundation
515 E. High St., Jefferson City, Missouri 65101
SPONSORED BY THE MISSOURI STATE MEDICAL ASSN.

The Council Reports

Meeting of April 5, 1970

The MSMA Council met at the Muehlebach Hotel in Kansas City on April 5 immediately following the closing of the 112th Annual Session with President Joseph L. Fisher, M.D., St. Joseph, presiding. Those present were Drs. Fisher; Doyle C. McCraw, Bolivar; Gerald L. Miller, Kansas City; Max S. Franklin, St. Louis; John I. Matthews, Jefferson City; John N. Martin, St. Joseph; Walter T. Gunn, St. Louis; Robert A. Mayer, Clayton; James C. Cope, Columbia; William D. Bradshaw, Clinton; E. A. Stricker, St. James; Howard J. McAlhany, Springfield; J. Loren Washburn, Versailles; William D. Mayer and William C. Allen, Columbia; R. Allen Chandler, Kansas City; John A. Griffith, Jr., Kansas City; Messrs. John W. Noble, Kennett; Allen D. Smith, Kansas City; Gary L. Schnedler, Springfield; Ray McIntyre, Bob Carroll and Royal O. Cooper, Staff, and R. W. Kelley, M.D., St. Louis.

Dr. Fisher opened the meeting by asking Dr. Miller to introduce the new Councilor from the Seventh District. Dr. Miller introduced Dr. R. Allen Chandler of Kansas City and welcomed him to the Council. Dr. Miller also thanked the Council and Officers for their support during his year as Chairman of the Council.

Dr. Walter T. Gunn was nominated and elected Chairman of the Council by unanimous vote and, thereby, became the presiding officer.

ELECTION OF OFFICERS

Dr. E. A. Stricker was nominated and unanimously elected Vice-Chairman of the Council. Dr. John I. Matthews was nominated and unanimously elected Secretary and Dr. Max S. Franklin was nominated and elected Treasurer by acclamation. Congratulations also were extended to the Councilors from the odd-numbered districts who were reelected.

PEER REVIEW

The Chairman indicated that the House of Delegates had referred the matter of peer review back to the Council for implementation. It was suggested that the implementation of a peer review mechanism be referred back to the Ad Hoc Committee on Peer Review—Drs. Rae Froelich, Joseph Peden, Jr. and Al Biggs—for a report back to the Council at its May meeting regarding the development of a well-implemented program, with one addition to the Ad Hoc Committee—Dr. Clement Grebel of St. Louis.

It was moved and seconded that the Ad Hoc Committee on Peer Review be reappointed with the addition of Dr. Grebel and that the Committee report to the Council at its May meeting. Motion carried.

TEACHING HOSPITALS PARTICIPATION IN TITLE XIX PROGRAM

Dr. William Mayer brought the Council up-to-date regarding his communication with Mr. Carter, Division of Welfare, concerning teaching hospitals participation in the Missouri Title XIX Program and payment of supervisory physicians in such hospitals. He indicated that Mr. Carter had met with representatives of the medical and osteopathic schools in Missouri regarding this problem and they all felt it has been solved. However, it was later indicated that this might not be true. Dr. Mayer stated that Mr. Carter is now awaiting word from Washington and is to inform him what the final decision will be.

Dr. William Mayer then thanked the Council on behalf of Drs. Felix, Danforth and himself for the checks for the three medical schools from AMA-ERF.

Dr. Peterson indicated that four or five members of the MSMA serve on a medical advisory committee to the Division of Welfare and felt that if such problems as reported by Dr. Mayer were known by these physicians, they might be able to help resolve them.

COMPREHENSIVE HEALTH PLANNING

Dr. Kelley, a member of the Governor's Council for Comprehensive Health Planning and Chairman of the MSMA Committee, reported to the Council on Comprehensive Health Planning in Missouri. He indicated that several areawide planning agencies have been organized and are now functioning, while several others are still in the early planning stages.

Dr. Kelley stated that on the basis of his experience with the State Agency and the Metropolitan St. Louis area, he had the following recommendations to make to the Council:

(1) Continue the cooperation of MSMA with the state and areawide planning agencies, urging the membership of MSMA to take an active part in planning from the initial and exploratory stage and continuing into the operational phases.

(2) Urge the county societies within the geographical limits of the areawide agencies to band together and act as a unit in dealing with the agencies, choosing those members who will be most valuable to act on governing boards or advisory councils. It is extremely important that physicians select their representatives and not permit the choice to be made by lay organizers.

(3) The State Association should keep a close watch on developing areawide agencies, offering its good services and personnel wherever possible. Mr. Bob Carroll of the MSMA staff has attended meetings of the State Advisory Council. It would be highly desirable if Mr. Carroll or some other member of the staff could monitor meetings of the areawide agencies. The staff of the State Council (headed by Mr. Kenneth Bopp) will be happy to keep our state office informed of all scheduled meetings and will place our office on the mailing list for all informational material.

(4) The State Agency has several task forces, either in operation or development, which will be concerned with such matters as distribution of health manpower, financing of health care, environmental control, etc. In many instances, these task forces are dominated by

lay persons (consumers) and the health providers are often public health oriented or full-time medical school personnel. These problems and the approach to their solution will parallel, and often duplicate, studies that this Association might wish to initiate. It, therefore, seems wise that organized medicine should offer to cooperate in all these studies assuring that practicing physicians will be adequately represented. An example is the State Council's Task Force for Accessibility to Health Services which is headed by Dr. James D. Dexter of the Department of Neurology at Missouri University School of Medicine. This task force has been working hard, meeting once a month for two-day sessions, involving some eight hours of consultation, interviewing, hearings, etc. There was no practicing physician on the task force and the question raised at the State Advisory Council meeting was "where can you find a practicing physician who can give this amount of time." Fortunately, the group at Farmington headed by Drs. George Watkins and Richard Crough agreed to provide one of their members, Dr. Chastain, to join this task force, covering for him when he was away from his practice and substituting for him on the task force when he could not attend. This is the type of involvement which will be essential if organized medicine is to have a hand in planning for its future.

(5) The Division of Comprehensive Health Planning in the Department of Community Affairs operates on a budget financed 75% by the federal government and 25% by the state. This year the state share is $47,000. I would suggest that support for inclusion of this amount in the state's budget should be given by the Council of MSMA with letters to proper state administrative and legislative personnel expressing this support.

It was moved and seconded that a letter be sent to the Department of Community Affairs indicating that the Council of the MSMA approve their budgetary request to the Legislature for $47,000 as the state's share of the budget this year for the Division of Comprehensive Health Planning. Motion carried.

Considerable discussion followed regarding practicing physicians involvement in the setting up and implementation of local CHP agencies. It was felt that physicians should be involved from the beginning of the planning stage and in areawide planning, should act as a unit and not as separate medical societies, It was suggested that each Councilor might organize a medical advisory committee within his district to work with comprehensive health planning agencies.

On motion, duly seconded, the report on Comprehensive Health Planning was approved.

CRIPPLED CHILDREN'S TREATMENT CENTER

Dr. Miller indicated that he had received an informational letter from Dr. John Buesseler regarding the request of the Kirksville Osteopathic Hospital to become a service treatment center for crippled children. The Curators of the University of Missouri have placed this on file awaiting some negotiations. The final decision is in the hands of the Curators. HEW has indicated that they will take no action on this as it is a state problem. After discussion, Dr. Miller moved and it was seconded that the Council go on record with a letter to Dr. Vernon Wilson encouraging and suggesting delay in negotiations, pointing out the need for assurance of the establishment of quality control measures for such services and that the Council or a committee from the Council would be happy to discuss this entire matter further. Motion carried.

Dr. Gunn read a letter of resignation from Mr. Tom R. O'Brien as Executive Assistant of the MSMA effective April 1, 1970. It was moved and seconded that a letter be written to Mr. O'Brien accepting his resignation as of April 1, 1970 with regrets and stating our appreciation for his long and many years of service. Motion carried.

It was further moved and seconded that an addendum be made to the Employees' Pension Plan so that a lump sum can be paid out to employees in the plan terminating their employment in lieu of only monthly payments to which they are entitled. Motion carried.

Dr. McCraw and Dr. Miller both expressed their appreciation for the support of the Council, Officers and staff during the past year.

CLINICAL LABORATORY ADVERTISING

Mr. McIntyre stated that in the future we may be receiving requests from commercial laboratories to advertise in MISSOURI MEDICINE and asked the Council's feeling regarding this. After a brief discussion by Counsel, it was moved and seconded that we accept such ads meeting proper standards. Motion carried. Mr. McIntyre further indicated that the Executive Committee on March 8 approved the leasing of exhibit space at MSMA Annual Sessions to commercial laboratories approved by federal agencies.

Dr. Miller brought up the subject of clarification of floor privileges in the House of Delegates for elected officers of the Association. It was pointed out that this was not clearly spelled out in the MSMA Constitution and By-Laws. It was moved and seconded that this problem be referred to the Committee on Constitution and By-Laws for study and clarification.

Dr. McCraw reported on a telegram he had received from the Missouri Nurses' Association. It was moved and seconded that Mr. McIntyre contact the Executive Secretary of the Missouri Nurses Association to discuss the items presented in the telegram. Motion carried.

On motion of Dr. Cope, duly seconded, it was moved that copies of the four or five national health insurance plans be secured and mailed out by staff to all Council members. Motion carried.

NEXT COUNCIL MEETING

The next meeting of the Council will be held on May 23, 24, 1970 at the Downtown Holiday Inn, Jefferson City.

CLASSIFIED ADS

PSYCHIATRIST—Large VA Hospital, Kansas City Metropolitan area, nondiscrimination in employment. Write Chief of Staff VA Center, Wadsworth, Kansas 66089.

PHYSICIAN—Would like to relieve or assist busy practitioner evenings or weekends in St. Louis or surrounding area. Age, 37 years. Ten-years' experience in general practice. Presently in training. Contact Box 364, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

GENERALIST—For a group in St. Louis County. Privileges at four hospitals with no OB. Free time available. Excellent salary leading to early partnership. All the cultural advantages of St. Louis and medical educational facilities of two medical schools available. Contact Box 358, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

FAMILY MEDICINE—Department expansion is imperative, so the Medical Arts Clinic is looking for general practitioners, internists or pediatricians who want to practice improved medicine in an excellent community hospital environment in one of Missouri's nicest small towns located in the scenic Ozark foothills one hour south of St. Louis. High salary. Early partnership. Please contact C. W. Chastain, M.D., Medical Arts Clinic, Farmington, Missouri 63640.

ELEVEN ROOM OFFICE—For rent in large Missouri city. Across from large hospital. Completely equipped. Option to buy office, general and surgical equipment. Write to Box 353, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

INTERNIST AND GENERAL PRACTITIONER—To associate with group of seven physicians representing the major specialties. Top salary one year, then partnership. Forty-six bed general hospital which is now building a 21-bed addition and an adjoining clinic building, all owned by the group. Good recreation opportunities and time off. Growing town of 15,000 with excellent schools. Contact J. Will Fleming, Jr., M.D., Woodland Hospital and Clinic, Moberly, Mo. 65270.

TIRED OF SOLO RAT-RACE—Need assistant or associate in practice, primarily surgical, some general practice. Financial arrangements open. W. Russell Smith, M.D., F.A.C.S., Carthage, Mo. 64836.

MEDICAL BUILDING—For sale. Excellent, well-equipped building for medical practice. All large rooms—waiting room, three examining rooms, room for minor surgery and another room for physical therapy and laboratory work. One large office and two small offices. Also includes dental suite. Located in attractive Missouri town of 1,200 in scenic valley with several lakes nearby. Four hospitals within 25 miles. Terms can be arranged. Write Box 363, Missouri State Medical Association, Box 1028, Jefferson City, Mo. 65101.

EXCELLENT OPPORTUNITY—For one general surgeon, one general practictioner and one urologist to work a regular 40-hour week with 30 days paid vacation, nine paid holidays, accumulate 15 days sick leave and participate in an excellent retirement plan and life and health insurance. Salary $17,000 to $25,000 with regular increases. Ideal recreation area with fishing, hunting and boating. 228-bed general medical and surgical veterans hospital, Poplar Bluff, Mo. 63901. Please call collect: Dr. F. F. Bechtold, Chief of Staff, Area Code 314-785-4651.

PHYSICIAN—Internist with considerable private practice experience, preferably in his late 40's or early 50's. Needed as a Medicare consultant full time, 38 hours per week. Call Charles A. Burkhart, M.D., General American Life Insurance Company, (AC 314) CE 1-1700.

POSITION WITH MEDICAL STAFF—Student Health Service, University of Missouri at Columbia, Mo. To complete staff of 11. Starting salary $17,800 for 11 months, with substantial increases, excellent fringe benefits plus no-cost retirement plan. If interested, contact William R. Galeota, M.D., Director, Student Health Service, Columbia, Mo. 65201. An equal opportunity employer.

LOCUM TENENS—For September and October, 1970. Salary, $2,500 per month. Generalist to work with an eight-man group while a member of the group is on vacation. Write to Box 635, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

FOR SALE—Aloe steeline pediatric examining-treatment table, built-in scale, never used; Jones BMR machine, Cardiotron EKG; five-station dictaphone system; Burdick photomotograph, little used; steeline chairs and waste cans; Riter motor-driven hydraulic examining and proctology table. S. Schultz, M.D., 2730 Watson Rd., St. Louis, Mo. 63139 or call (AC 314) 647-5150.

SMALL MEDICAL BUILDING—For Sale. Southwest St. Louis, Hampton Village area. Ideal for group practice. Write Box 366, Missouri State Medical Association, 515 East High, Jefferson City, Mo. 65101.

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MISSOURI STATE MEDICAL FOUNDATION

SPONSORED BY THE MISSOURI STATE MEDICAL ASSN.
515 E. High St./Jefferson City, Missouri 65101

Purposes of Association

THE PURPOSES of the Missouri State Medical Association are to bring into compact organization the entire medical profession of the State of Missouri with the view of the extension of medical knowledge and the advancement of medical science, to promote and elevate the standards of medical education and the enactment and enforcement of just medical and public health laws, to encourage friendly intercourse among physicians, to guard and sustain measures of interest and advantage to the public and the medical profession and to promote science, knowledge and skill among the medical profession.

1950 MSMA Handbook
Centennial Issue

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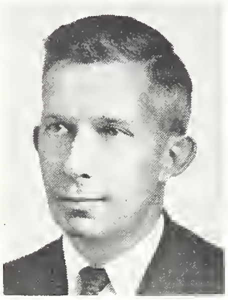
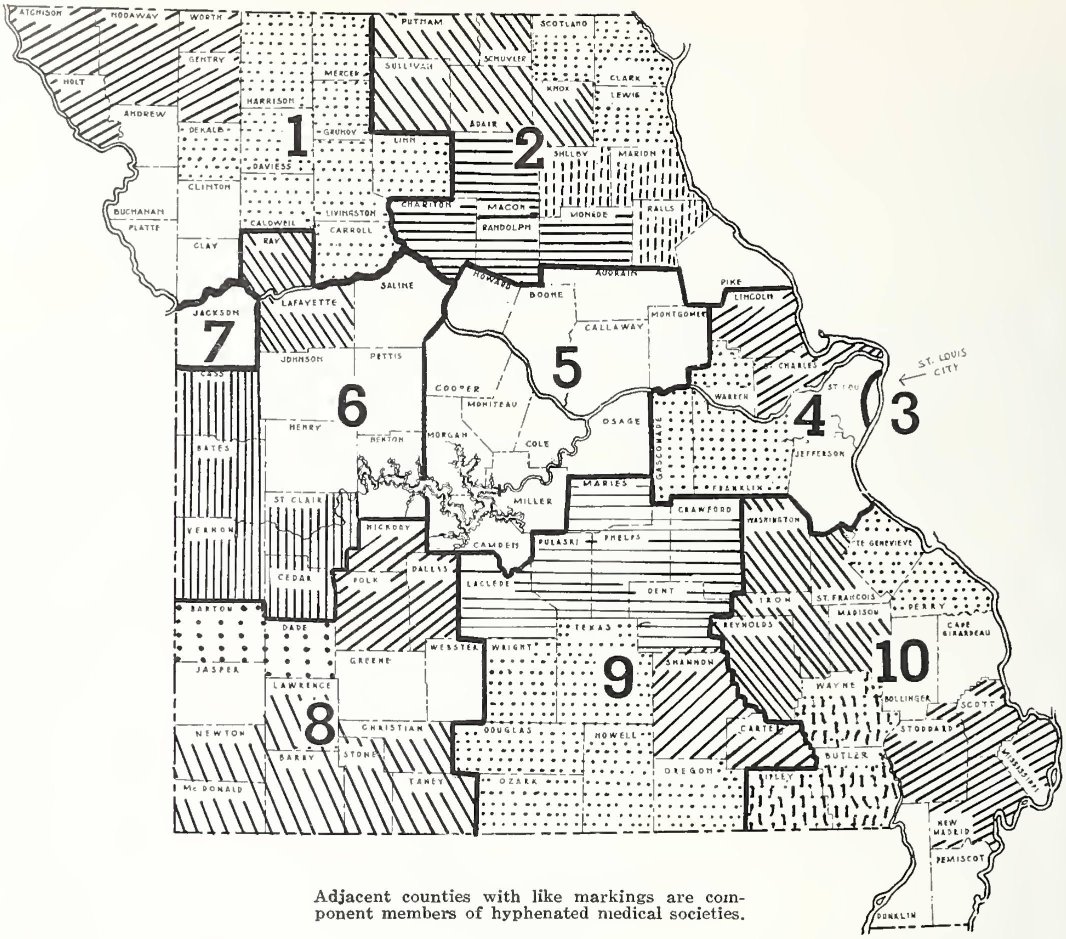


Joseph V. Finnegan
Editor

Councilor Districts and Counties in Each District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ST. LOUIS CITY
Atchison
Nodaway
Worth
Putnam
Scotland
Gentry
Sullivan
Schuyler
Clark
Holt
Mercer
Knox
Lewis
Harrison
Andrew
DeKalb
Grundy
Linn
Adair
Shelby
Marion
Daviess
Clinton
Buchanan
Platte
Caldwell
Livingston
Chariton
Macon
Monroe
Ralls
Carroll
Randolph
Clay
Ray
Howard
Audrain
Pike
Saline
Boone
Lincoln
Jackson
Lafayette
Callaway
Montgomery
Johnson
Pettis
St. Charles
St. Lou
Cass
Cooper
Moniteau
Warren
Osage
Henry
Benton
Morgan
Cole
Gasconade
Jefferson
Bates
Franklin
Maries
St. Clair
Miller
Crawford
Washington
Vernon
Hickory
Camden
Pulaski
Phelps
Ste. Genevieve
Cedar
Dallas
Polk
Laclede
Dent
Iron
St. Francois
Perry
Barton
Madison
Cape Girardeau
Dade
Reynolds
Webster
Wright
Texas
Jasper
Greene
Shannon
Wayne
Lawrence
Bollinger
Scott
Newton
Christian
Douglas
Howell
Carter
Stoddard
Barry
Stone
Butler
Mississippi
Taney
Oregon
McDonald
Ozark
Ripley
New Madrid
Pemiscot
Dunklin

Adjacent counties with like markings are component members of hyphenated medical societies.

DISTRICT	COUNCILOR	COUNTIES
First	**John N. Martin, M.D.** St. Joseph	Andrew, Atchison, Buchanan, Caldwell, Carroll, Clay, Clinton, Daviess, De Kalb, Gentry, Grundy, Harrison, Holt, Linn, Livingston, Mercer, Nodaway, Platte and Worth
Second	**Lysle M. Bach, M.D.** Hannibal	Adair, Chariton, Clark, Knox, Lewis, Macon, Marion, Monroe, Pike, Putnam, Ralls, Randolph, Schuyler, Scotland, Shelby and Sullivan
Third	**Walter T. Gunn, M.D.** (Chairman) St. Louis	St. Louis (City)
Fourth	**Robert A. Mayer, M.D.** St. Louis County	Franklin, Gasconade, Jefferson, Lincoln, St. Charles, St. Louis (County) and Warren.
Fifth	**James C. Cope, M.D.** Columbia	Audrain, Boone, Callaway, Camden,* Cole, Cooper, Howard, Miller, Moniteau, Montgomery, Morgan and Osage*
Sixth	**William D. Bradshaw, M.D.** Clinton	Bates, Benton, Cass, Cedar, Henry, Johnson, Lafayette, Pettis, Ray, St. Clair, Saline and Vernon
Seventh	**R. Allen Chandler, M.D.** Kansas City	Jackson
Eighth	**Howard J. McAlhany, M.D.** Springfield	Barry, Barton, Christian, Dade, Dallas, Greene, Hickory, Jasper, Lawrence, McDonald, Newton, Polk, Stone, Taney and Webster
Ninth	**E. A. Stricker, M.D.** (Vice-Chairman) St. James	Carter, Crawford, Dent, Douglas, Howell, Laclede, Maries, Oregon, Ozark, Phelps, Pulaski, Shannon, Texas and Wright
Tenth	**Eugene T. Hansbrough, M.D.** Poplar Bluff	Bollinger,* Butler, Cape Girardeau, Dunklin, Iron, Madison, Mississippi, New Madrid, Pemiscot, Perry, Reynolds, Ripley, St. Francois, Ste. Genevieve, Scott, Stoddard, Washington and Wayne

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* Counties with no medical organization.

Component Societies in Affiliation With the Missouri State Medical Association

County	District	President	Address	Secretary	Address
Andrew	1	Gilbert B. Kelley	Savannah	Warren C. Baker	Savannah
Audrain	5	Charles L. Garcia	Mexico	Thomas L. Dwyer	Mexico
Barton	8	Vern T. Bickel	Lamar	Herbert M. Arnold	Lamar
Boone	5	H. M. Hardwicke	Ashland	Norman D. Asel	Columbia
Buchanan	1	O. W. D. Craig	St. Joseph	E. F. Butler	St. Joseph
Butler-Wayne-Ripley	10	Barry B. White	Poplar Bluff	Richard V. Camp, Jr.	Poplar Bluff
Callaway	5	Richard Osbourn	Fulton	James K. Ritterbusch	Fulton
Cape Girardeau	10	Gordon Nunnelly	Cape Girardeau	Charles Cozean	Cape Girardeau
Carter-Shannon	9			Harry D. Rollins	Winona
Chariton-Macon-Monroe-Randolph	2	P. V. Dreyer	Huntsville	C. C. Cohrs	Moberly
Clay	1	Richard P. Bowles	Liberty	Daniel Boone	Kansas City
Clinton	1	Wilber B. Spalding	Plattsburg	John P. Mabrey	Plattsburg
Cole	5	Fred P. Handler	Jefferson City	E. David Scott	Jefferson City
Cooper	5	W. B. Avery	Boonville	E. T. Humphreys	Boonville
Dallas-Hickory-Polk-Dade	8	Lee A. McNeel, Jr.	Greenfield	Monte Kahler	Bolivar
Dunklin	10	Pin H. Pu	Kennett	Quinton Tarver	Kennett
Franklin-Gasconade-Warren	4	Sam Bonney	Washington	Thomas J. Mitchell	St. Clair
Grand River (Caldwell-Carroll-Livingston-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb)	1	Billy D. Howell	Brookfield	Frank R. Daley	Hamilton
Greene	8	Howard J. McAlhany	Springfield	J. Lynn Ferguson	Springfield
Henry	6	W. D. Bradshaw	Clinton	R. S. Hollingsworth	Clinton
Howard	5	F. D. Dean	Fayette	M. P. Leech	Fayette
Jackson	7	Wallace P. McKee	Kansas City	Carl M. Peterson	Kansas City
Jasper	8	R. R. Cohle	Carthage	H. J. Schmidt	Joplin
Jefferson	4	Harold Donnell	De Soto	J. Logan Mayfield	Crystal City
Johnson	6	M. Garza Gonzalez	Warrensburg	Hugh Hanna	Warrensburg
Lafayette-Ray	6	W. E. Koppenbrink, Jr.	Higginsville	W. Wayne Boydston	Odessa
Lewis-Clark-Scotland	2	Earl E. Gilfillan	Memphis	Landis Y. Davis	Canton
Marion-Ralls-Shelby	2	Phillip B. Foreman	Hannibal	Walter N. A. Latimer	Hannibal
Mid-Missouri (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)	9	Martin M. Hart	Salem	Ted P. Smith	Rolla
Miller	5	Edward O. Shelton	Eldon	Carl T. Buehler, Jr.	Eldon
Mineral Area (St. Francois-Iron-Madison-Washington-Reynolds)	10	Andrew Fraser	Rivermines	C. W. Chastain	Farmington
Moniteau	5	K. S. Latham	California	L. M. Gallagher	California
Montgomery	5	E. J. T. Andersen	Montgomery City	S. J. Byland	Wellsville
Morgan	5	Ray Lyle	Versailles	Jack Gunn	Versailles
North Central Counties (Adair-Schuyler-Knox-Sullivan-Putnam)	2	Edward M. Grim	Kirksville	Milton T. English	Kirksville
Northwest Missouri Medical Society (Nodaway-Holt-Atchison-Gentry-Worth)	1	Robert E. Dunshee	Maryville	Frank Matteson	Grant City
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)	8	Mary Jane Merideth	Cassville	Wilbur D. Dabbs	Neosho
Pemiscot	10	J. W. Bernard	Caruthersville	C. W. McKaskle	Caruthersville
Perry-Ste. Genevieve	10	Gerard H. DeGenova	Ste. Genevieve	J. F. Fairchild	Perryville
Pettis	6	David R. Edwards	Sedalia	James N. Burkeholder	Sedalia
Pike	2	Lawrence G. Stuerman	Louisiana	Edward K. Jackson	Clarksville
Platte	1	Paul C. Vescovo	Kansas City	Charles H. Sincox	Platte City
St. Charles-Lincoln	4	Thomas A. Schneider	St. Charles	John C. Soucy	St. Charles
St. Louis City	3	Joseph C. Edwards	St. Louis	Paul L. Friedman	St. Louis
St. Louis County	4	Miles C. Whitener	St. Louis	Argyrios Tsifutis	St. Louis
Saline	6	Richard Raynor	Marshall	E. Lee McCorkle	Marshall
SEMO County Medical Society (Stoddard-New Madrid-Mississippi-Scott)	10	Frank Tull	Sikeston	Thelma C. Buckthorpe	Sikeston
South Central (Howell-Oregon-Texas-Wright-Douglas-Ozark)	9	C. W. Cooper	Thayer	Jack N. Wiles	West Plains
Webster	8	T. M. Macdonnell	Marshfield	Robert J. Bareis	Marshfield
West Central Missouri Medical Society (Bates-Cass-Cedar-St. Clair-Vernon)	6	Roy W. Pearse, Jr.	Nevada	Curtis W. Long	Butler

Physician Distribution and Guide to County Medical Societies

A list of Missouri communities in which MSMA member-physicians are in active practice. Name of the community is followed by the county in which it is located and the medical society to which physicians of that community normally would belong.

A

Affton, St. Louis*
Albany, Gentry, Northwest Missouri
Altenberg, Perry
Appleton City, St. Clair, West Central
Arnold, Jefferson
Aurora, Lawrence, Ozarks
Ava, Douglas, South Central

B

Ballwin, St. Louis*
Belton, Cass, West Central
Berkeley, St. Louis*
Bethany, Harrison, Grand River
Bismarck, St. Francois, Mineral Area
Bloomfield, Stoddard, SEMO
Blue Springs, Jackson
Bolivar, Polk, Dallas-Hickory-Polk-Dade
Bonne Terre, St. Francois, Mineral Area
Boonville, Cooper
Bourbon, Crawford, Mid-Missouri
Bowling Green, Pike
Branson, Taney, Ozarks
Braymer, Caldwell, Grand River
Brentwood, St. Louis*
Bridgeton, St. Louis*
Brookfield, Linn, Grand River
Browning, Linn, Grand River
Brunswick, Chariton, Chariton-Macon-Monroe-Randolph
Buckner, Jackson
Buffalo, Dallas, Dallas-Hickory-Polk-Dade
Butler, Bates, West Central

C

Cabool, Texas, South Central
Cainesville, Harrison, Grand River
California, Moniteau
Camdenton, Camden
Cameron, Clinton
Cape Girardeau, Cape Girardeau
Cardwell, Dunklin
Carrollton, Carroll, Grand River
Carthage, Jasper
Caruthersville, Pemiscot
Cassville, Barry, Ozarks
Centralia, Boone
Chaffee, Scott, SEMO
Charleston, Mississippi, SEMO
Chesterfield, St. Louis*
Chillicothe, Livingston, Grand River
Clarksville, Pike
Clayton, St. Louis*
Clinton, Henry
Columbia, Boone
Concordia, Lafayette, Lafayette-Ray
Crane, Stone, Ozarks
Creve Coeur, St. Louis*
Crystal City, Jefferson
Cuba, Crawford, Mid-Missouri

D

Desloge, St. Francois, Mineral Area
DeSoto, Jefferson
Dexter, Stoddard, SEMO
Doniphan, Ripley, Butler-Wayne-Ripley

E

East Prairie, Mississippi, SEMO
Edina, Knox, North Central
Eldon, Miller
El Dorado Springs, Cedar, West Central
Elsberry, Lincoln, Lincoln-St. Charles
Everton, Jackson
Excelsior Springs, Clay

F

Farmington, St. Francois, Mineral Area
Fayette, Howard
Fenton, St. Louis*
Ferguson, St. Louis*
Festus, Jefferson
Flat River, St. Francois, Mineral Area
Florissant, St. Louis*
Forsyth, Taney, Ozarks
Fort Leonard Wood, Pulaski, Mid-Missouri
Fredericktown, Madison, Mineral Area
Frontenac, St. Louis*
Fulton, Callaway

G

Gallatin, Daviess, Grand River
Gashland, Clay
Gerald, Franklin, Franklin-Gasconade-Warren
Gideon, New Madrid, SEMO
Gladden, St. Louis*
Glasgow, Howard
Glendale, St. Louis*
Gordonville, Cape Girardeau
Gower, Clinton
Grandview, Jackson
Grant City, Worth, Northwest Missouri
Gravois Mills, Jackson
Greenfield, Dade, Barton-Dade

H

Hamilton, Caldwell, Grand River
Hannibal, Marion, Marion-Ralls-Shelby
Harrisonville, Cass, West Central
Hayti, Pemiscot
Herculaneum, Jefferson
Hermann, Gasconade, Franklin-Gasconade-Warren
Hickman Mills, Jackson
Higginsville, Lafayette, Lafayette-Ray
Hillsboro, Jefferson
Holden, Johnson
Hornersville, Dunklin
Houston, Texas, South Central
Humansville, Polk, Dallas-Hickory-Polk-Dade
Huntsville, Randolph, Chariton-Macon-Monroe-Randolph

I

Illmo, Cape Girardeau
Independence, Jackson
Ironton, Iron, Mineral Area

J

Jackson, Cape Girardeau
Jefferson Barracks, St. Louis*
Jefferson City, Cole
Jennings, St. Louis*
Joplin, Jasper

K

Kansas City, Jackson
Kennett, Dunklin
King City, Gentry, Northwest Missouri
Kirksville, Adair, North Central
Kirkwood, St. Louis*
Knobnoster, Johnson
Knox City, Knox, North Central
Koch, St. Louis*

L

Ladue, St. Louis*
Lamar, Barton
Lawson, Ray, Lafayette-Ray
Leadwood, St. Francois, Mineral Area
Lebanon, Laclede, Mid-Missouri
Lee's Summit, Jackson
Leeton, Johnson
Lemay, St. Louis*
Lexington, Lafayette, Lafayette-Ray
Liberty, Clay
Lockwood, Dade, Dallas-Hickory-Polk-Dade
Louisiana, Pike

M

Macon, Macon, Chariton-Macon-Monroe-Randolph
Malden, Dunklin
Maplewood, St. Louis*
Marceline, Linn, Grand River
Marshall, Saline
Marshfield, Webster
Marthasville, Warren, Franklin-Gasconade-Warren
Martin City, Jackson
Maryville, Nodaway, Northwest Missouri
Memphis, Scotland, Lewis-Clark-Scotland
Mexico, Audrain
Milan, Sullivan, North Central
Moberly, Randolph, Chariton-Macon-Monroe-Randolph
Monett, Barry, Ozarks
Montgomery City, Montgomery
Morehouse, New Madrid, SEMO
Morrisville, Polk, Dallas-Hickory-Polk-Dade
Mound City, Holt, Northwest Missouri
Mountain Grove, Wright, South Central
Mountain View, Howell, South Central
Mount Vernon, Lawrence, Ozarks

N

Neosho, Newton, Ozarks
Nevada, Vernon, West Central
New Florence, Montgomery
New Haven, Franklin, Franklin-Gasconade-Warren
New Madrid, New Madrid, SEMO
Normandy, St. Louis*
North Kansas City, Clay

O

Oak Grove, Jackson
Odessa, Lafayette, Lafayette-Ray
O'Fallon, St. Charles, Lincoln-St. Charles
Olivette, St. Louis*
Osceola, St. Clair, West Central
Overland, St. Louis*
Owensville, Gasconade, Franklin-Gasconade-Warren
Ozark, Christian, Ozarks

P

Pacific, Franklin, Franklin-Gasconade-Warren

Palmyra, Marion, Marion-Ralls-Shelby
Paris, Monroe, Chariton-Macon-Monroe-Randolph
Parkville, Platte
Parma, New Madrid, SEMO
Pattonsburg, Daviess, Grand River
Pattonville, St. Louis*
Perryville, Perry, Perry-Ste. Genevieve
Piedmont, Wayne, Butler-Wayne-Ripley
Pine Lawn, St. Louis*
Platte City, Platte
Plattsburg, Clinton
Pleasant Hill, Cass, West Central
Poplar Bluff, Butler, Butler-Wayne-Ripley
Portageville, New Madrid, SEMO
Potosi, Washington, Mineral Area
Princeton, Mercer, Grand River

R

Raytown, Jackson
Reeds Springs, Stone, Ozarks
Republic, Greene
Rich Hill, Bates, West Central
Richmond, Ray, Lafayette-Ray
Richmond Heights, St. Louis*
Ridgeway, Harrison, Grand River
Robertson, St. Louis*
Rock Hill, St. Louis*
Rockport, Atchison, Northwest Missouri
Rolla, Phelps, Mid-Missouri

S

St. Ann, St. Louis*
St. Charles, St. Charles, Lincoln-St. Charles
St. Clair, Franklin, Franklin-Gasconade-Warren
Ste. Genevieve, Ste. Genevieve, Perry-St. Genevieve
St. James, Phelps, Mid Missouri
St. Joseph, Buchanan
St. Louis City*
Salem, Dent, Mid Missouri
Salisbury, Chariton, Chariton-Marion-Monroe-Randolph
Sappington, St. Louis*
Sarcoxie, Jasper
Savannah, Andrew
Sedalia, Pettis
Shelbina, Shelby, Marian-Ralls-Shelby
Shelbyville, Shelby, Marion-Ralls-Shelby
Shrewbury, St. Louis*
Sikeston, Scott, SEMO
Slater, Saline
Smithton, Pettis
Smithville, Clay
Springfield, Greene
Stanberry, Gentry, Northwest Missouri
Steele, Pemiscot
Steelville, Crawford, Mid Missouri
Stockton, Cedar, West Central
Strafford, Greene
Sullivan, Franklin, Franklin-Gasconade-Warren
Sweet Springs, Saline

T

Tarkio, Atchison, Northwest Missouri
Thayer, Oregon, South Central
Trenton, Grundy, Grand River
Troy, Lincoln, Lincoln-St. Charles

U

Union, Franklin, Franklin-Gasconade-Warren
University City, St. Louis*

V

Valley Park, St. Louis*
Vandalia, Audrain
Versailles, Morgan

W

Warrensburg, Johnson
Warrenton, Warren, Franklin-Gasconade-Warren
Warsaw, Benton
Washington, Franklin, Franklin-Gasconade-Warren
Waverly, Lafayette, Lafayette-Ray
Waynesville, Pulaski, Mid Missouri
Webb City, Jasper
Webster Groves, St. Louis*
Wellsville, Montgomery
Wentzville, St. Charles, Lincoln-St. Charles
West Plains, Howell, South Central
Willard, Greene
Willow Springs, Howell, South Central
Windsor, Henry
Winona, Shannon, Carter-Shannon
Winston, Daviess, Grand River

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* Member may belong to St. Louis County Medical Society or St. Louis Medical Society.

For Your Records . . . .

The 113th

ANNUAL SESSION

of the

Missouri State Medical Association

will be held on

April 15-18, 1971

Chase-Park Plaza Hotel

St. Louis

Missouri State Medical Association

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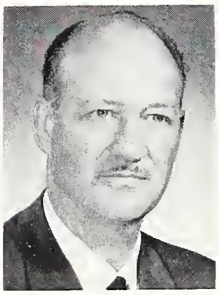
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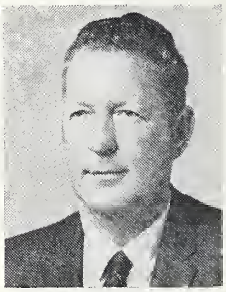
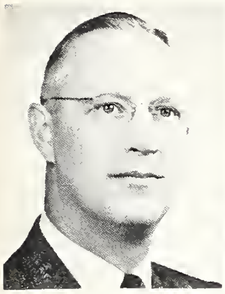

R. A. Slickman
Vice-Speaker

AMA Delegates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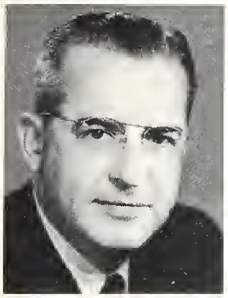
J. Loren Washburn


Hector W. Benoit, Jr.

Arthur W. Neilson

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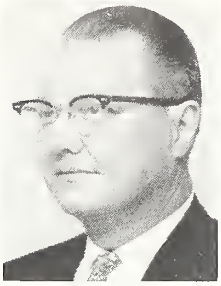
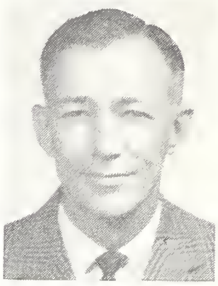
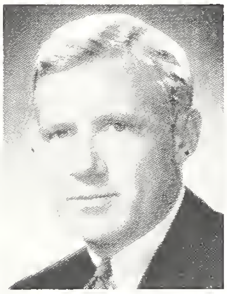
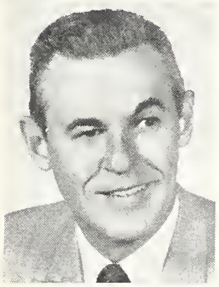

James C. Sisk


Rae W. Froelich

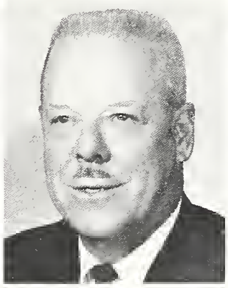

Hugh E. Stephenson, Jr.

Robert W. Kelley

The Council


John N. Martin
1st District

Lysle M. Bach
2nd District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4th District

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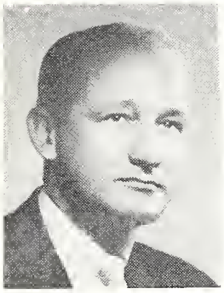
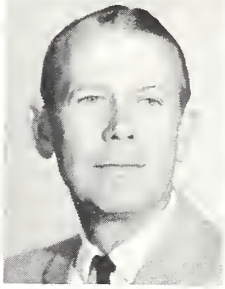
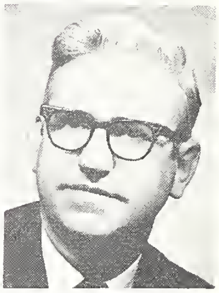
5th District

William D. Bradshaw
6th District


R. Allen Chandler
7th District


Howard J. McAlhany
8th District

E. A. Stricker
9th District
Vice-Chairman


Eugene T. Hansbrough
10th District

MSMA Committees and Commissions 1970-1971

The Standing Committees and Commissions presented on this page represent the reorganization of the Missouri State Medical Association's committee system as stated in the revised Chapter VII of the Constitution and By-Laws, which was approved by the House of Delegates at the 1970 Annual Session. The chairmen and members of each committee and commission are listed.

STANDING COMMITTEES

Executive Committee—Joseph L. Fisher, St. Joseph, Chairman; Gerald L. Miller, Kansas City; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; Walter T. Gunn, St. Louis; E. A. Stricker, St. James (1971).

Constitution and By-Laws—Kenneth G. Hollweg, Kansas City, Chairman (1973); Paul F. Max, St. Louis (1973); Donald M. Dowell, Chillicothe (1972); Kenneth E. Knabb, Springfield (1972); Paul R. Whitener, St. Ann (1971).

Publication—Joseph V. Finnegan, St. Louis, Chairman; William C. Mixson, Kansas City; Charles S. Sherwin, St. Louis; Byron M. Stuart, Boonville; Wilfred Wooldridge, Springfield (1971).

Legislative Affairs—John I. Matthews, Jefferson City, Chairman; Joseph L. Fisher, St. Joseph; Gerald L. Miller, Kansas City; Walter T. Gunn, St. Louis; Doyle C. McCraw, Bolivar (1971).

Planning—David N. Kerr, St. Louis, Chairman (1975); Hector W. Benoit, Jr., Kansas City (1975); Charles P. McGinty, Cape Girardeau (1974); James Cope, Columbia (1974); Albert Cross, Trenton (1973); C. Read Boles, St. Louis (1973); William D. Bradshaw, Clinton (1972); J. Will Fleming, Moberly (1972); Kenneth Glover, Mount Vernon (1971); James A. Hasek, Mountain Grove (1971).

Voluntary Health Agencies—Wendell G. Scott, St. Louis, Chairman (1973); Charles E. Lockhart, Springfield (1973); John McDonough, St. Louis (1972); Max E. Teare, Kansas City (1972); Guy N. Magness, St. Louis (1971).

STANDING COMMISSIONS

Public Affairs—H. V. Guhleman, Jr., Jefferson City, Chairman (1973); A. W. Neilson, St. Louis (1973); Richard Sutter, St. Louis (1973); Richard Bowles, Liberty (1973); Hubert Ritter, St. Louis (1973); Troy Morgan, Albany (1972); John T. Crowe, Cape Girardeau (1972); Thomas J. Fischer, Hannibal (1972); John L. Mothershead, St. Joseph (1972); C. Keith Whittaker, Kansas City (1972); Joseph Kendis, St. Louis (1971); W. W. Tillman, Jr., Springfield (1971); John L. Barnard, Jr., Kansas City (1971); Allen Klippel, St. Louis (1971); John P. Ferguson, Jr., Springfield (1971).

Medical Economics, Third Party Medicine and Governmental Relations—Herbert C. Wiegand, St. Louis, Chairman (1973); W. J. Ferguson, Sikeston (1973); Kenneth K. Keown, Columbia (1973); Rae W. Froelich, Lebanon (1973); Louis P. Hetlage, Troy (1973); Francis M. Maple, Springfield (1972); Stanley S. Peterson, Springfield (1972); Victor B. Buhler, Kansas City (1972); Mark D. Eagleton, St. Louis (1972); E. E. Wadlow, St. Joseph (1972); Rolla B. Wray, Nevada (1971); Charles W. Chastain, Farmington (1971); Richard E. Lord, St. Louis (1971); Blaine Z. Hibbard, Kansas City (1971); John N. Martin, St. Joseph (1971).

Continuing Education and Health Manpower—John F. McDonnell, Kansas City, Chairman (1973); A. Sherwood Baker, Columbia (1973); Edward D. Kinsella, St. Louis (1973); Paul O. Hagemann, St. Louis (1973); Charles A. Worley, Sweet Springs (1973); Edwin M. Powell, Springfield (1972); H. Peter Ekern, Mexico (1972); B. J. Bass, Salem (1972); George H. Ladyman, Poplar Bluff (1972); Paul R. Young, Kansas City (1972); Richard A. Fraser, Bonne Terre (1971); Richard W. Yore, St. Louis (1971); W. Thomas Morgan, Jr., West Plains, (1971); Paul H. Rother, St. Charles (1971); W. Wayne Boydston, Odessa (1971).

Medical-Legal Affairs—Daniel L. Yancey, Springfield, Chairman (1973); Robert E. Funsch, St. Louis (1973); Frederick J. McCoy, Kansas City (1973); Ned B. Chase, Jr., Joplin (1973); Jack S. Sanders, Jefferson City (1973); Lee T. Ford, Jr., St. Louis (1972); Jack L. Vinyard, Carrollton (1972); Wilbur P. McDonald, St. Joseph (1972); Harold B. Rapp, Cape Girardeau (1972); William R. McPhee, Kansas City (1972); Joseph S. Cope, Lexington (1971); Jerome I. Simon, Clayton (1971); Irving H. Clark, Kansas City (1971); Miles C. Whitener, St. Louis County (1971); E. J. Schewe, Jr., Columbia (1971).

Interspecialty Medicine—Charles Gulick, St. Louis, Obstetrics and Gynecology, Chairman; Truman B. Schertz, North Kansas City, Ophthalmology; Walter J. Stelmach, Kansas City, General Practice; Hugh E. Stephenson, Jr., Columbia, General Surgery; G. W. N. Eggers, Jr., Columbia, Anesthesiology; Robert M. Hazen, Kansas City, Otolaryngology; M. Richard Carlin, St. Louis, Urology; Lester E. Wolcott, Columbia, Physiatry; Edmund V. Cowdry, Jr., St. Louis, Psychiatry; Francis X. Lieb, St. Louis, Pediatrics; Arthur Porporis, St. Louis, Radiology; M. D. Marcus, St. Louis, Dermatology; George L. Hawkins, Jr., St. Louis, Neurological Surgery; Omer E. Hagebusch, St. Louis, Pathology; William Stoneman, III, St. Louis Plastic Surgery; Francis M. Maple, Springfield, Internal Medicine; Hector W. Benoit, Jr., Kansas City, Thoracic and Cardiovascular Surgery; James T. Leslie, Jefferson City, Orthopedic Surgery; Joseph C. Peden, Jr., St. Louis, General Surgery; Herbert E. Rosenbaum, St. Louis, Neurology; Edwin Wolfgram, St. Louis, Psychiatry; (1971).

Alphabetical Roster of Members

A

Aach, Richard D., St. Louis
Aaron, George A., Independence
Abel, Charles C., St. Louis
Abel, Oliver, III, St. Louis
Abele, William A., Boonville
Abell, Walter E., St. Louis
Abrams, Bernard M., Kansas City
Abrams, Morris, St. Louis
Acker, Harry L., St. Louis
Ackerman, Lauren V., St. Louis
Acuff, R. Phillip, St. Joseph
Adams, Harold D., Columbia
Adams, Howard D., Liberty
Adams, Robert B., Jr., Joplin
Adelman, Arthur, Kansas City
Adler, Benard C., St. Louis
Adler, Federico, Kansas City
Agee, Loren G., Kansas City
Agress, Harry, St. Louis
Ahern, Archibald M., St. Louis
Ahlering, George H., Clayton
Ahlvin, Robert C., St. Louis
Aiken, George A., Marshall
Aitken, Louis F., St. Louis
Aks, Daniel, Kansas City
Akyol, Salim, St. Louis
Albera, Victor H., St. Louis
Alberg, Marvin R., Kansas City
Alderman, Thomas F., Kansas City
Alex, Morris, St. Louis
Alexander, Frazier D., St. Louis
Allain, James J., North Kansas City
Allan, James R., Springfield
Allbee, Roger H., Crystal City
Allebach, Hobart K., Kansas City
Allen, Claude J., Rich Hill
Allen, David O., Joplin
Allen, Erroll W., Carrollton
Allen, Henry C., Clayton
Allen, Hollis N., St. Louis
Allen, James H., St. Louis
Allen, Jerry H., Springfield
Allen, Joseph E., Columbia
Allen, Louis A., N. Kansas City
Allen, Melvin A., St. Louis
Allen, Robert E., Kansas City
Allen, Robert W., Columbia
Allen, S. Lloyd, Kansas City
Allen, Willard M., St. Louis
Allen, Wiliam B., Kansas City
Allen, William C., Columbia
Allen, William E., Jr., St. Louis
Allen, William H., Nevada
Allison, James B., Springfield
Almond, Carl H., Columbia
Alonso-Yague, P., St. Louis
Alsop, Webb S., Jr., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Althaus, Carl Jacob, St. Louis
Altheide, Harvey E., Ladue
Altheide, J. Paul, St. Louis
Altman, Harold, St. Louis
Altomare, Edward P., Kansas City
Altringer, Arthur N., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Alvarez, Luis L., St. Louis
Alvarez, Ulises C., St. Louis
Alvis, Bennett Y., St. Louis
Alvis, Edmund B., St. Louis
Alyea, J. O., Cape Girardeau
Alzola, Jose M.. St. Louis
Amado-Ledo, David E., St. Louis
Ames, Mary B., St. Joseph
Ames, William H., St. Joseph
Amlinger, Philipp R., Columbia
Ammatelli. Francis J., Kansas City
Amoury, Raymond A., Kansas City
Andersen, Elmer J. T., Montgomery City
Anderson, Charles B., St. Louis
Anderson, Ivan A., Columbia
Anderson, K. Clair, Albany, Ore.
(Member Jackson County Medical Society)
Anderson, Paul B., Neosho
Anderson, Philip C., Columbia
Anderson, Raymond B., Kansas City
Anderson, Richard W., Kansas City
Anderson, Thomas R., Columbia
Andreassen, Dimil F., Rolla
Andrews, Berneil W., Kansas City
Andrus, Bailey C., Kansas City
Angles, Luis E., Kansas City
Anglo, Luis B., St. Louis
Anstey, George, St. Louis
Anthony, Dallas, Springfield
Anthony, Elwyn J., St. Louis
Appleberry, Charles H., Rivermines
Aquino, Philip J., Caruthersville
Arbab, Ali A., Kansas City
Archer, Perry C., Shelbyville
Arms, Arnold V., Kansas City
Armstrong, Jay H., Shawnee Mission, Kan.
(Member Clay County Medical Society)
Arneson, Axel N., St. Louis
Arney, William G., St. Louis
Arnold, Eugene L., Jennings
Arnold, Herbert M., Lamar
Arnold, John D., Kansas City
Arnold, Richard C., Columbia
Aronberg, Lawrence M., St. Louis
Aronson, Abraham, St. Louis
Arnot, John P., St. Louis
Arst, Herbert E., Kansas City
(Member Clay County Medical Society)
Aschman, Theodore H., Kansas City
Asel, Norman D., Columbia
Ash, Charles J., Springfield
Asher, A. Graham, Kansas City
Ashley, Hugh V., Cape Girardeau
Ashley, Hugh, Jr., Cape Girardeau
Ashley, Thomas F., Springfield
Atcheson, Bellefield, Kansas City
Atcheson, Windsor B., Trenton
Atkins, Eliska F., St. Louis
Atkinson, Thomas E., Jr., Springfield
Atwell, Floyd C., Kansas City
Auer, Arthur I., St. Louis
Auer, Edward T., St. Louis
Aufderheide, G. Russell, St. Louis
Augustine, Robert W., St. Joseph
Aulenbacher, Carl E., St. Louis
Auner, Cecil R., Springfield
Averill, Keith H., Kansas City
Avery, Willard B., Boonville
Avioli, Louis V., St. Louis
Ayata, Sedat M., St. Louis
Aylward, Howard J., St. Louis
Azuma, Nobutaka, St. Louis
Azzouni, J. N., Fenton

B

Babka, Joseph J., St. Louis
Bach, Lysle M., Hannibal
Back, Donald K. Springfield
Backer, Matthias H., Jr., St. Louis
Badger, Virginia M., St. Louis
Baer, Alvin J., Kansas City
Bagby, James W., Clayton
Bahn, Charles F., Cape Girardeau
Bailey, Alan H., Springfield
Bailey, Drennan, St. Louis
Bailey, William H., St. Louis
Baird, Keim L., St. Louis
Baker, A. Sherwood, Columbia
Baker, Donald L., Union
Baker, James M., Columbia
Baker, Josephine D., Moberly
Baker, Philip J., Kansas City
Baker, Warren C., Savannah
Balazs, Karl J., Port Charlotte, Fla.
(Member St. Louis Medical Society)
Baldwin, Paul, Kennett
Baldwin, Richard, Springfield
Baldwin, Theodore R., Excelsior Springs
Bales, Eugene L., Carrollton
Balhuizen, John, Kansas City
Ball, David A., Kansas City
Ballard, V. Bryce, Kansas City
Ballinger, Walter F., II, St. Louis
Balster, Vernon H., St. Louis
Bandle, Donald F., St. Louis
Banet, Samuel R., St. Louis
Banks, Frank R., Smithville
Banton, M. Roman, St. Louis
Banton, Thomas J., St. Louis
Banton, William C., Baltimore, Md.
(Member St. Louis Medical Society)
Barbour, Marvin R., Poplar Bluff
Barden, Frank W., Creve Coeur
Bare, Chester I., Jr., Raytown
Bare, Edward F., Tarkio
Bareis, Robert J., Marshfield
Barelli, Pat A., Kansas City
Barker, Edward T., St. Louis
Barloon, James H., Kansas City
Barnard, John L., Jr., Kansas City
Barner, Hendrick, St. Louis
Barnes, Seth S., Cape Girardeau
Barnett, Charles H., Bolivar
Barnett, Floyd A., Paris
Barnett, Gordon P., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Barnett, Julian H., St. Louis
Barnett, Norman H., Joplin
Barnette, Eugene, St. Charles
Barnhill, Floyd R., Springfield
Barone, Paul L., Nevada
Barr, Glenn A., Kansas City
Barragan, Hector, Ballwin
Barrett, Scott R., St. Louis
Barrios, Francisco, St. Louis
Barrow, Jack, St. Louis
Barry, Gerald W., Kansas City
Barry, William B., Kansas City
Bartlett, Robert W., St. Louis
Bartlett, Willard, Jr., St. Louis
Bartnick, Mitchel L., St. Louis
Basantz, Fernando V., Leawood, Kan.
(Member Jackson County Medical Society)
Baska, R. E., Kansas City
Bass, Billy J., Salem
Bass, Walter R., Kansas City
Bates, George C., Kansas City
Battersby, Richard S., Columbia
Baue, Arthur E., St. Louis
Bauer, Harold A., Lockwood
Bauer, John D., St. Louis
Bauer, Joseph A., St. Louis
Bauer, Lafe W., Kansas City
Bauer, Maria, Granite City, Ill.
(Member St. Louis Medical Society)
Bauer, Otto, Granite City, Ill.
(Member St. Louis Medical Society)
Bauer, Robert A., St. Louis
Baum, Frank E., Kansas City
Bauman, Henry C., Maryville
Baumann, A. R., Steelville
Baumann, William B., APO New York, N.Y.
(Member St. Louis Medical Society)
Baumgarten, Walter, Jr., St. Louis
Baumhardt, Edward E., Kansas City
Bawell, Malcolm B., St. Louis
Bay, Merrill R., Blue Springs
Bealer, Louis A., Lebanon
Beare, J. Byron, St. Louis
Beasley, L. Kenneth, St. Louis
Beato, David L., St. Louis
Beatty, Arch J., Kansas City
Beatty, Eugene C., Kansas City
Beatty, Nina D., Kansas City
Beaty, William R., St. Louis
Beck, Calvin E., Kansas City
Beck, Paul M., St. Joseph
Becker, Bernard, St. Louis
Becker, Edward J., St. Louis
Becker, George H., St. Louis
Becker, Richard R., Kansas City
Becker, Rolfe A., Kansas City
Becker, Stanley C., St. Louis
Beckett, Theodore C., Boonville
Beckette, Edmund S., St. Louis
Beckman, Donald E., St. Louis
Beecher, Sheldon B., Poplar Bluff
Beene, Thomas K., Lebanon
Beheler, Edward M., St. Joseph
Behrens, Donald T., St. Louis
Behrens, Gerald L., St. Louis
Beidle, Raymond J., St. Ann
Beis, Louis D., St. Charles
Belancourt, Dunet F., St. Louis
Belden, Edgar A., Jefferson City
Belew, Joe E., St. Louis
Bell, Robert M., St. Louis
Bell, William F., Lee's Summit
Benage, Clarence M., Florissant
Bence, Jackson J., Kansas City
Benjamin, Durand, St. Louis
Bennett, James D., Kansas City
Benoit, Hector Wright, Jr., Kansas City
Benson, John F., St. Louis
Benson, Leo J., Jr., Kennett
Benson, Scott C., St. Joseph
Benson, William F., Kansas City
Bentley, John D., Springfield
Benton, Calvin B., St. Louis
Berard, Louis N., St. Louis
Berenson, Sheldon E., Kansas City
Berg, Leonard, St. Louis
Berg, Ralph, St. Louis
Berger, Edward J., St. Louis
Berger, Robert M., St. Louis
Bergman, Hugo F., St. Louis

Bergmann, Dwayne, St. Louis
Bergmann, John F., St. Louis
Bergmann, Martin, St. Louis
Bergmann, Victor H., Kansas City
Bergner, Grace E., St. Louis
Berland, Harry I., St. Louis
Berman, William, St. Louis
Bernard, J. W., Caruthersville
Berndsen, Gerard H., Rock Hill
Berney, Francis J., St. Joseph
Berni, Anthony A., St. Louis
Bernreiter, Michael, Kansas City
Bernstein, Aaron M., Clayton
Berry, G. Neill, Kansas City
Berry, John W., St. Louis
Berry, Maxwell G., Kansas City
Berry, Paul T., Troy
Bersche, Bertram L., St. Louis
Berwald, Irwin I., St. Louis
Bess, William E., Sedalia
Best, Robert, Higginsville
Bettonville, Paul J., Jr., St. Louis
Betz, Richard J., Neosho
Bickel, Vern T., Lamar
Bickley, James E., Kansas City
Biddy, Ralph L., St. Louis
Biggs, Alfred D., Jr., Kansas City
Biggs, Fred J., Jr., Poplar Bluff
Biggs, Harry L., Kansas City
Bikales, Victor W., Kansas City
Biller, Hugh F., St. Louis
Bills, Marvin L., Kansas City
Bilsky, Nathan, St. Louis
Bindbeutel, Arthur H., St. Louis
Bindbeutel, Donald A., St. Louis
Binder, Morton A., St. Louis
Bingham, Hal G., Columbia
Bircher, John L., St. Louis
Birenbaum, Aaron, St. Louis
Birge, Clifford A., St. Louis
Birsner, Frank H., Carthage
Bishop, Marion D., Florissant
Bishop, Mary M., St. Louis
Bisno, Daniel, St. Louis
Black, Don A., Kansas City
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Black, Samuel P. W., Columbia
Black, Thomas C., Jr., Kansas City
Blacklock, David E., King City
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Blackwell, Charles R., University City
Blackwell, Charles W., Columbia
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Bladow, Terrence C., Joplin
Blair, Vilray P., Jr., St. Louis
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Blank, Michael K., De Soto
Blankenship, Dale M., Cape Girardeau
Blankenship, George W., Neosho
Blanton, J. C., Sikeston
Bleisch, Virgil R., St. Louis
Blim, Richard D., Kansas City
Block, Arnold S., St. Louis
Block, J. E., Sedalia
Bloom, W. A., Fayette
Blount, Lee, Jr., St. Louis
Bockelman, Clifford H., Brentwood
Boedeker, Roy V., St. Louis
Boemer, Lilburn C., St. Louis
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Boldizar, Albert G., St. Louis
Boldt, Thomas H., St. Louis
Boles, Clifford R., Clayton
Boley, James O., Kansas City
Bolgar, Bertalan, Festus
Bolinske, Robert E., St. Louis
Bondurant, Bryce H., St. Louis
Bonebrake, M. D., Springfield
Bonfanti, Albert L., St. Louis
Boniuk, Isaac, St. Louis
Bonner, John T., Columbia
Bonney, Samuel C., Washington
Boone, Daniel C., Kansas City
Boonshaft, Benje, St. Louis
Bordy, Marvin D., Kansas City
Borenstine, Joseph, Kansas City
Borowsky, Benjamin A., St. Louis
Borsuk, Gregory M., Kansas City
Bortnick, Arthur R., St. Louis
Bortnick, Eugene, Kansas City
Boswell, John R., St. Louis
Boteler, George M., Kansas City
Botwin, Arnold E., Kansas City
Boughnou, Harvey P., Kansas City
Bourke, Timothy S., Kansas City
Boutros, Amin, Kansas City
Boveri, Joseph C., St. Louis
Bowdern, Edward H., Richmond Heights
Bowen, Stephen F., Jr., St. Louis
Bowerman, Harold H., St. Louis
Bowers, James E., St. Louis
Bowersox, Warren A., Pacific
Bowles, G. Robert, St. Louis
Bowles, Richard P., Liberty
Bowles, William T., St. Louis
Bowman, Melvin C., Neosho
Bowser, John F., Kansas City
Boyarsky, Saul, St. Louis
Boyce, John Milton, Mexico
Boyd, Arthur M., St. Louis
Boyd, George K., Kansas City
Boydston, Catherine, Odessa
Boydston, W. Wayne, Odessa
Boyer, Philip A., Jr., Kansas City
Boylan, Peter C., Kansas City
Bozzo, Raymond J., Washington
Braby, Howard H., Independence
Bradford, John F., Kansas City
Bradley, Frank R., St. Louis
Bradley, Richard V., Clayton
Bradley, William W., Centralia
Bradshaw, W. D., Clinton
Brady, Arthur M., Kansas City
Brady, Charles H., Sedalia
Brady, Harry R., St. Louis
Brady, Hugh S., Concordia
Brams, Jack B., Kansas City
Brand, Earl L., Webster Groves
Brangle, Robert W., St. Louis
Brasher, Ben H., Lexington
Brasher, Charles A., Mt. Vernon
Braufman, Harvey S., St. Louis
Braverman, Abe E., Kansas City
Braverman, Elliot M., Sedalia
Brazos, John C., Smithton
Bregant, Robert E., Jefferson City
Bremser, Harry L., St. Louis
Brennan, George A., St. Louis
Brennan, John A., St. Louis
Brennan, Patricia A., St. Louis
Brennan, Raymond J., Chillicothe
Brennan, Robert A., St. Louis
Brennan, Robert V., St. Louis
Brenner, Paul A., Owensville
Brereton, Robert L., Kirkwood
Bricker, Eugene M., St. Louis
Brielmaier, Charles R., St. Louis
Brinker, Ray A., St. Louis
Briscoe, John R., Maplewood
Bristow, Robert B., St. Joseph
Broaddus, Loren, Springfield
Brock, Bernard, Prairie Village, Kans.
(Member Jackson County Medical Society)
Brodeur, Armand E., Kirkwood
Bronson, Shael S., St. Louis
Brooke, Clement E., Columbia
Brookes, Robert D., St. Louis
Brookreson, Alton D., Poplar Bluff
Brookreson, Alton F., Poplar Bluff
Brooks, John M., Springfield
Brother, George M., St. Louis
Broun, Goronwy O., St. Louis
Broun, Goronwy O., Jr., St. Louis
Brown, Adrian J., Kansas City
Brown, Daniel W., San Diego, Calif.
(Member St. Louis Medical Society)
Brown, E. Eugene, St. Louis
Brown, Elwyn S., Kansas City
Brown, Frederick B., Aurora
Brown, Irwin S., Kansas City
Brown, James B., St. Louis
Brown, James M., St. Louis
Brown, James T., Springfield
Brown, John J., Fulton
Brown, Katherine S., Fulton
Brown, Lyman D., Springfield
Brown, Menzie H., Kansas City
Brown, Robert S., Kansas City
Brown, Seymour, St. Louis
Brownsberger, Robert H., Appleton City
Broyles, Watkins A., Bethany
Bruce, Helen L., St. Louis
Bruce, Leo A., Sikeston
Bruce, Paul C., Excelsior Springs
Brugger, Thomas, St. Louis
Brukardt, Diane, Columbia
Brumm, Lawrence W., Kansas City
Bruner, Claude R., Columbia
Bruner, Robert E., Kansas City
Bruns, Kenneth, University City
Brust, Carl H., Mission, Kan.
(Member Jackson County Medical Society)
Bryan, James H., Clayton
Bryan, William H., Jr., Kansas City
Bryan, William T. K., St. Louis
Bryant, Sydney L., St. Joseph
Bryant, T. J., Kansas City
Buben, Robert W., Kirksville
Buckingham, William, Kansas City
Buckner, Robert C., Kansas City
Buckthorpe, Thelma C., Sikeston
Budd, John J., Jr., St. Louis
Budke, Harold A., Kansas City
Buehler, Carl T., Jr., Eldon
Buesseler, John A., Columbia
Bugg, Andrew F., Lordsburg, N. M.
(Member Mineral Area County Medical Society)
Buhler, Victor B., Kansas City
Buie, Bruce R., Kansas City
Bumgarner, James E., Columbia
Bumgarner, Roger W., Columbia
Bunting, Williston P., Kansas City
Burch, John E., Joplin
Burcham, Tom R., Jr., Farmington
Burde, Ronald M., St. Louis
Burford, Cyrus E., St. Louis
Burford, Edwin K., Jr., Cape Girardeau
Burford, Thomas H., St. Louis
Burk, E. K., Kansas City
Burke, Robert J., St. Louis
Burkeholder, James N., Sedalia
Burkey, Jordan W., Springfield
Burkhart, Charles A., St. Louis
Burkhart, Edward F., St. Louis
Burks, Jess E., St. Louis
Burmeister, R. William, St. Louis
Burns, Francis J., St. Louis
Burns, Francis R., Hannibal
Burns, Thomas J., Springfield
Burns, Thomas W., Columbia
Burnside, Charles R., Kirkwood
Burry, Virgil F., Kansas City
Burst, Donald O., St. Louis
Burstein, Robert, St. Louis
Burton, Dale F., Hannibal
(Member St. Louis Medical Society)
Busby, William E., Columbia
Busch, Anthony K., St. Louis
Busiek, Erwin F., Springfield
Busiek, Paul J., Springfield
Busiek, Urban J., Springfield
Bussmann, Donald W., St. Louis
Butcher, Harvey R., Jr., St. Louis
Butcher, Robert W., Kansas City
Butler, E. F., St. Joseph
Butler, Patrick L., Joplin
Butsch, Richard H., St. Louis
Butterworth, Nelson S., Kansas City
Butts. James D., Rolla
Byer, John Albert, Columbia
Byers, Philip L., Kansas City
Byland, Benjamin F., Maryville
Byland, Samuel J., Wellsville
Bynum, William R., Columbia
Byrne, John E., St. Louis
Byrum, Fritz A., Ballwin

C

Caciolo, Carlo, St. Louis
Cacioppo, Joseph E., St. Louis
Cada, Edward G., Warrensburg
Cadice, John B., St. Louis
Caffrey, Raymond J., Kansas City
Cain, Alvin R., Lamar
Cain, Charles F., Caruthersville
Caldwell, Fred, Poplar Bluff
Caldwell, John K., Kansas City
Calkins, Delevan, St. Louis
Callahan, Donald E., Jennings
Callahan, Joseph D., St. Louis
Callaway, Guy D., Springfield
Callaway, Guy D., Jr., Springfield
Callihan, Charles F., West Plains
Callman, George, St. Joseph
Calodney, Martin M., St. Louis
Calovich, Emery R., Kansas City
Camel, H. Marvin, St. Louis
Camp, Richard V., Jr., Poplar Bluff
Campbell, A. J., Sedalia
Campbell, Cecil S., St. Louis
Campbell, Edward D., Cape Girardeau
Campbell, Frederick B., Kansas City
Campbell, James E., Macon
Campos, Francisco J., St. Louis
Canaan, Samuel A., Jr., St. Louis
Cancelada, Juan, Farmington
Canlas, Emilio M., Poplar Bluff
Cannon, Edward M., St. Louis
Canty, Eugene J., St. Charles
Capetti, Alex P., Crane
Cappel, Powel B., St. Louis
Capps, Eugene C., Kansas City
Carleton, Charles E.. Jr., Farmington
Carlin, Albert L., Stanberry
Carlin, M. Richard, St. Louis
Carlson, Arne E., St. Louis
Carlson, Hjalmar E., Kansas City
Carmichael, Francis A., Jr., Kansas City
Carmona, Gilberto V., Arnold

Carnell, B. M., Camdenton
Carnes, Victor M., Joplin
Carpenter, George T., St. Joseph
Carpenter, James L., St. Louis
Carpenter, Wallace, Rockport
Carr, Archie D., St. Louis
Carr, G. Thomas, St. Louis
Carr, Philip W., Springfield
Carranza, Mauro J., Hillsboro
Carrier, John A., St. Louis
Carrington, Howard W., Lebanon
Carroll, George A., St. Louis
Carroll, Grayson, St. Louis
Carroll, Percy J., Clayton
Carroll, Richard C., Crystal City
Carroll, Thomas W., Lamar
Carron, Joseph F., Arnold
Carron, Oscar A., Perryville
Carson, Richard A., Ballwin
Carter, Edwin E., Clayton
Carter, Howard, Hamilton
Carter, James R., Neosho
Carter, John F., St. Louis
Cartwright, Robert S., Columbia
Caruso, Alfred A., Kansas City
Cary, John M., St. Louis
Casady, Gilbert N., Kansas City
Casas, Julian R., St. Louis
Case, William F., Kansas City
Casebolt, Buford T., Kansas City
Casey, Edwin J., St. Louis
Cash, Charles R., Kennett
Cason, Elbert H., St. Louis
Cassel, Melvin A., St. Louis
Casson, Henry, St. Louis
Castelaw, Rush E., Kansas City
Castillo, Michael E., Kansas City
Catalano, J. Denis, Maryland Heights
Catanzaro, Anthony F., St. Louis
Catanzaro, Francis J., St. Louis
Catanzaro, Marshall J., Biloxi, Miss.
(Member St. Louis Medical Society)
Catanzaro, Rudolph E., St. Louis
Cavanagh, Denis, St. Louis
Cavaness, Ernest W., Encinitas, Calif.
(Member Jackson County Medical Society)
Cejas, Leandro P., Sikeston
Centner, Paul J., Kansas City
Chalkley, Judson I., Columbia
Challener, William A., III, St. Joseph
Chamberlain, Gilbert L., Boonville
Chambers, James Q., Jr., Kansas City
Chamness, James T., St. Louis
Chandler, Robert A., Kansas City
Chaplin, Hugh, Jr., St. Louis
Chapman, Charles L., Columbia
Chapman, David W., Independence
Chapman, James H., Kansas City
Chapman, Jean A., Cape Girardeau
Chapman, Samuel B., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Charles, Benjamin H., St. Louis
Charles, Cecil M., Clayton
Charnas, Raymond M., St. Louis
Chase, Ned B., Jr., Joplin
Chastain, Charles W., Farmington
Cheek, Charles W., Columbia
Cheek, J. William, Springfield
Cheng, Alfred K., APO New York, N. Y.
(Member Jackson County Medical Society)
Chernoff, Selbert G., Kansas City
Cherre, Anthony J., St. Louis
Cherre, Charles J., St. Louis
Chesanow, Robert L., St. Louis
Chesney, George W., Joplin
Chiasson, E. Chaille, Columbia
Chieffi, Margaret, St. Louis
Childs, Donnalea S., Kansas City
Childs, Richard M., Kansas City
Chiles, David R., Smithville
Chinsky, Murray, St. Louis
Chou, Yen Ping, Koch
Christ, Martin H., St. Joseph
Christensen, Roger F., Louisiana
Christianson, Charles S., Mt. Vernon
Christy, Raymond A., Springfield
Chute, W. Deward, Moberly
Ciampa, Thomas, St. Louis
Ciapciak, Stanley J., St. Louis
Clark, Clarence L., St. Louis
Clark, Irving H., Kansas City
Clark, Kendall A., Jefferson City
Clark, Richard E., St. Louis
Clarke, Michael J., Springfield
Clary, William F., Springfield
Claseman, Wilma W., St. Louis
Clasen, Arthur C., Miami Beach, Fla.
(Member Jackson County Medical Society)
Clawson, James W., Springfield

Clayton, Edgar L., Springfield
Cleary, Frank, St. Louis
Cleveland, Horace F., Long Beach, Calif.
(Member St. Louis Medical Society)
Clever, Henry W., Jr., St. Charles
Cline, Harold H., Piedmont
Cline, Merle A., Kansas City
Clisham, John F., Hannibal
Clothier, Robert W., Independence
Cloyd, Mason D., Washington, D. C.
(Member St. Louis Medical Society)
Coates, Thomas A., St. Louis
Cobb, James R., Kansas City
Coben, Lawrence A., St. Louis
Coburn, Donald F., Kansas City
Cochran, Donald Q., Columbia
Cochran, Jo R., Cape Girardeau
Cochran, Thomas E., Jr., Springfield
Cochrane, Joseph J., Kansas City
Cockerell, Sanford F., Independence
Coffee, Amos L., Willow Springs
Coffey, Ralph R., Kansas City
Coffin, Theodore A., Kansas City
Coffman, Esther E. L., Lakeworth, Fla.
(Member Ozarks Medical Society)
Cohen, Benjamin H., Clayton
Cohen, Frank, St. Ann
Cohen, Harry K., Kansas City
Cohen, Hillard K., St. Ann
Cohen, Robert A., Kansas City
Cohen, Robert S., Creve Coeur
Cohle, Richard R., Carthage
Cohrs, Clarence C., Moberly
Cokingtin, Leovigildo, Independence
Cokrhame, Jack, Florissant
Colbert, Robert S., Sikeston
Coldwater, Kenneth B., St. Louis
Cole, William R., Smithton
Colglazier, Mary C., Kansas City
Collantes, Jose L., Nevada
Coller, Frederick B., Springfield
Collins, Gretchen D., Macon
Collins, John A., St. Louis
Collins, John M., St. Louis
Collodi, George A., St. Louis
Colom, George A., Kansas City
Colwill, Jack M., Columbia
Comas, Manuel R., Manchester
Comeau, Richard A., Dexter
Comens, Phillip, St. Louis
Comens, Ruth C., St. Louis
Comer, J. Russell, San Francisco, Calif.
(Member Jackson County Medical Society)
Commerford, John F., St. Charles
Compton, James R., Sarasota, Fla.
(Member St. Louis County Medical Society)
Cone, Alfred J., Chesterfield
Conley, William R., Kirkwood
Connell, Evan S., Kansas City
Connelly, Michael W., Florissant
Conrad, Adolph H., Jr., Clayton
Conrad, Joseph A., Chillicothe
Conrad, Marshall B., St. Louis
Conrad, Raymond C., Springfield
Cook, Galen B., Pebble Beach, Calif.
(Member Boone County Medical Society)
Cook, James R., Springfield
Cook, Jerry W., Kansas City
Cook, Marvin A., Creve Coeur
Cook, O. W., Caruthersville
Cook, Thomas B., Richmond
Cooper, Charles S., Kansas City
Cooper, Charles W., Jefferson City
Cooper, Claude W., Thayer
Cooper, Henry T., St. Louis
Cooper, James F., Florissant
Cooper, Lawrence E., Ft. Myers, Fla.
(Member Pemiscot County Medical Society)
Cooper, Leo F., Kansas City
Cooper, Maurice E., Columbia
Cooper, R. Lee, Warrensburg
Cooper, Theodore, Bethesda, Md.
(Member St. Louis Medical Society)
Cooper, Thomas J., St. Louis
Cope, James C., Columbia
Cope, Joseph S., Lexington
Copher, Glover H., St. Louis
Coppinger, Thomas A., Kansas City
Corday, Robert J., St. Louis
Cordonnier, James K., Springfield
Cordonnier, Justin, St. Louis
Correnti, Nicholas A., St. Louis
Cortez, Willie S., Lebanon
Cortner, Mary C., Kansas City
Costa, Dominic V., St. Louis
Costello, Cyril J., St. Louis
Costello, Joseph P., Jr., Brentwood
Costen, William S., St. Louis
Costrino, Joseph A., St. Louis

Cotlier, Edward, Great Lakes, Ill.
(Member St. Louis Medical Society)
Cottey, J. H., St. Charles
Coughlin, Bertrand D., St. Louis
Courter, Larry P., Jefferson City
(Member Jackson County Medical Society)
Cowdry, Edmund V., Jr., St. Louis
Cowherd, Joseph B., Kansas City
Cox, John P., St. Joseph
Cox, Kenneth E., Kansas City
Cox, Mary E., St. Louis
Cox, Robert D., University City
Cox, William A., Jefferson City
Cox, William L., Liberty
(Member Jackson County Medical Society)
Coxe, William S., St. Louis
Cozart, Duane E., Chesterfield
Cozean, Charles H., Jr., Cape Girardeau
Craig, Alan G., St. Louis
Craig, Irwin T., Joplin
Craig, Owen W. D., St. Joseph
Craig, Richard O., St. Joseph
Crain, James W., Branson
Cramer, Quentin, Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Crawford, Archie L., Joplin
Crawford, Katherine J., University City
Crawford, Oral B., Springfield
Crawford, Robert M., Sullivan
Crayton, Billy G., Waverly
Creech, Joseph C., Troy
Cremer, William J., Fulton
Crespo, Horacio T., Florissant
Crespo, Remedios R., Florissant
Cresswell, George F., Potosi
Crews, Robert N., Fulton
Crider, Russell J., St. Charles
Criscione, James R., St. Louis
Criscione, James S., St. Louis
Crispell, Lawrence S., Joplin
Critchlow, Wm. C., Sikeston
Crocker, Albert M., Kansas City
Crockett, James E., Kansas City
Croom, Dorwyn W., Malden
Crosby, Alice S., Columbia
Cross, Albert D., Trenton
Crossman, Robert W., Webster Groves
Crotty, John P., Creve Coeur
Crouch, F. Richard, Farmington
Crow, Martin L., Kansas City
Crowe, John T., Cape Girardeau
Crowell, Hugh C., St. Louis
Crozier, Franklin A., Richmond
Cuddihee, Robert E., Jr., San Francisco, Calif
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Culbertson, William F., Kansas City
Culley, Thomas S., Columbia
Cullum, Albert G. J., Middlesboro, Ky.
(Member St. Louis County Medical Society)
Cunningham, Darral D., Springfield
Cunningham, E. J., Jr., St. Louis
Curiel, Manuel S., Kansas City
Curran, Desmond, Kansas City
Curts, Calvin J., Kansas City
Cutcliff, Daniel J., Kansas City
Cutler, Harold M., St. Louis
Cutler, Harry, St. Louis
Czebrinski, Edward W., St. Louis

D

Daake, John W., St. Louis
Dabbs, Wilbur D., Neosho
Dagartzikas, A. K., Hazelwood
Dahm, Charles H., Jr., St. Louis
Dahms, Gustave, St. Louis
Daley, Frank R., Hamilton
Dalton, Arthur R., St. Louis
Dalton, Timothy T., Kansas City
Daman, George A., St. Louis
Dames, Richard J., St. Louis
Damron, Edward O., Elsberry
Damron, Oscar H., Warrensburg
Danforth, William H., St. Louis
Danis, Peter G., St. Louis
Danis, Richard K., St. Louis
Dankner, Arnold, St. Louis
Dann, David S., Kansas City
Darnell, Thomas F. B., Columbia
Dash, Udaya N., St. Louis
Daughaday, William H., St. Louis
Daum, Harold F., Sedalia
Davault, George K., Richmond
Davidson, Kendrick C., Leawood, Kan.
(Member Jackson County Medical Society)
Davidson, Morris, Clayton
Davie, Joseph, St. Louis
Davis, C. Braxton, Nevada
Davis, Charles S., Joplin

Davis, David, Bethesda, Md.
(Member Boone County Medical Society)
Davis, David O., St. Louis
Davis, Donald R., Kansas City
Davis, Edgar W., St. Louis
Davis, Gustave L., St. Louis
Davis, Herbert V., Kansas City
Davis, Jack M., Kansas City
Davis, John J., Overland Park, Kan.
(Member Jackson County Medical Society)
Davis, Kenneth A., Kansas City
Davis, Landis Y., Canton
Davis, Leonard L., Jr., Knoxville, Tenn.
(Member Audrain County Medical Society)
Davis, Martin W., St. Louis
Davis, Richard E., Kansas City
Davis, Robert C., Kansas City
Davis, Wilbur L., Charleston
Day, Anthony B., Marshall
Day, John K., Columbia
Day, Maxwell, Solon, Iowa
(Member Buchanan County Medical Society
Deakin, Rogers, St. Louis
Dean, Francis D., Fayette
Dean, Lee W., Jr., St. Louis
Debnam, James W., Jr., St. Louis
Decker, Albert I., Kansas City
Deeken, James H., Kansas City
DeGenova, Gerald H., Ste. Genevieve
DeHovitz, Bernard, Palo Alto, Calif.
(Member St. Louis County Medical Society)
Deitchman, Robert B., St. Louis
De Jesus, Alberto, St. Louis
de la Torre, John J., Sullivan
DeLeon, Romualdo V., Arnold
Deles, Vincente D., Crystal City
Deligeorges, John, Kansas City
Del Pizzo, Ferdinand, St. Charles
Del Valle, Fernando, St. Louis
DeMaria, Peter F., Kansas City
DeMott, John D., Kansas City
DeMotte, John A., Kansas City
Dempsey, Herbert A., Lee's Summit
Denk, Alan F., St. Louis
Denney, Richard W., Mountain Grove
Dennie, Charles C., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Denninghoff, James C., Columbia
Dennis, W. Paul, Flat River
Denny, Hubert M., Union
Denton, Robert E., Smithville
Dernoncourt, John E., Smithville
DeTar, Burleigh E., Joplin
Dettmer, Robert F., Ironton
Deutch, Max, St. Louis
Devine, John B., St. Louis
Devine, Mark W., Jr., Kansas City
Devins, George S., Kansas City
DeVivo, Darryl C., St. Louis
Dewald, Paul A., St. Louis
DeWeese, Marion S., Columbia
Dewein, Edward G., St. Louis
Dexheimer, Frank R., Columbia
Dexter, James D., Columbia
Deyton, John W., St. Louis
Dick, Earl, St. Louis
Dickler, Donald J., St. Louis
Diehr, Maurice A., St. Louis
Diekroeger, Manuel L., Boonville
Diemer, Peter A., Kirkwood
Dierker, H. D., Lebanon
Dietrich, Karl D., Columbia
DiLeo, Senatro W., Jennings
Dill, Foster A., Maplewood
Dillard, Burl M., St. Louis
Dillard, Erin M., Springfield
Dills, Joseph N., Springfield
Dinelli, Frank E., Poplar Bluff
Dinkins, James A., Cape Girardeau
Diveley, Rexford L., Kansas City
Dixon, John R., Brookfield
Dixon, Vewiser L., Kansas City
Dlabal, Luke J., Independence
Dmytryk, Eugene T., St. Louis
Doane, William L., Grandview
Dodge, Mark, Kansas City
Dodge, Milton, Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Dodge, Philip R., St. Louis
Doering, Robert W., Kansas City
Doggett, Sylvester, Sikeston
Doisy, Philip P., St. Louis
Doisy, Robert A., Glendale
Dolan, Daniel L., Springfield
Dolan, John T., Jr., St. Louis
Domke, Herbert R., St. Louis
Donaldson, Robert C., St. Louis
Donati, Robert M., St. Louis
Donegan, Judith H., Columbia
Donegan, William L., Columbia
Donley, Leo F., Jr., St. Louis
Donley, Robert R., Monett
Donnell, Harold E., De Soto
Donnell, Robert H., Crystal City
Donnell, Thomas A., DeSoto
Dooley, Joseph M., Jr., St. Louis
Dorsch, Ervin H., Independence
Dorton, Robert K., St. Louis
Dowd, James F., Jr., St. Louis
Dowell, Donald M., Chillicothe
Dowell, J. Larry, Pattonsburg
Downey, James W., Kansas City
Doyle, Charles R., St. Louis
Doyle, Matthew J., Jefferson City
Drace, Charles C., Jr., St. Louis
Drake, Avery A., Rolla
Drake, Roy F., Kansas City
Drake, William K., Collinsville, Ill.
(Member St. Louis Medical Society)
Drake, William L., Jr., St. Louis
Draney, Thomas E., Kansas City
Draper, Bernard, Rolla
Dreher, Richard L., Kansas City
Drennan, James A., St. Louis
Drescher, Emmett B., St. Louis
Drews, Robert C., St. Louis
Drey, Norman W., St. Louis
Dreyer, Carl J., Webster Groves
Dreyer, Philip V., Huntsville
Dreyer, William F., Houston
Drisko, Robert M., Kansas City
Drowns, Bruce V., Kansas City
Drum, Helen M., St. Louis
Dubuque, Theodore J., Jr., St. Louis
Duckworth, Gordon L., Jr., Hayti
Duden, Charles W., St. Louis
Duemler, John H., St. Louis
Duemler, Robert H., St. Louis
Duer, Mildred C., Kansas City
Duffy, Adrian, St. Louis
Duffy, Eileen, St. Loius
Duffy, Francis G., St. Louis
Duffy, Oliver F., Trenton
Duggan, John J., Jr., Kirkwood
Dulick, Michael, Brentwood
Duling, Gerald J., St. Charles
Dumonceaux, Leonard J., St. Charles
DuMont, Clement C., St. Joseph
DuMontier, R. J., O'Fallon
Dunaway, Howard A., Sikeston
Duncan, Robert D., Springfield
Duncan, Wm. H., Kansas City
Dunham, Robert H., N. Kansas City
Dunleavy, James D., Kansas City
Dunmire, George Q., Kennett
Dunn, Robert E., St. Louis
Dunshee, Robert E., Maryville
DuPont, Jean-René, Sikeston
Durnell, Monaford D., Lee's Summit
Durr, Jon W., Florissant
Durst, Henry, Fulton
Dworkin, Saul, St. Louis
Dwyer, Frank X., Kansas City
Dwyer, Hugh L., Shawnee Mission, Kan.
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Dwyer, Richard M., Monterey, Calif.
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Dwyer, Thomas L., Mexico
Dyer, Dallas J., St. Louis
Dzundzev, Penco, St. Louis

E

Eades, Dee W., St. Louis
Eades, Joseph W., St. Louis
Eagleton, Mark D., Clayton
Eanet, Morton P., Kansas City
Earp, Ralph K., St. Louis
Ebel, Eugene H., St. Louis
Eber, Carl T., St., Louis
Eberle, John P., St. Louis
Eberle, Vincent L., St. Louis
Echterhoff, Harry R., St. Louis
Eck, Birkle, St. Louis
Ecker, Decider, Pacific
Eckert, Clarence T., St. Louis
Ecklund, Archibald M., San Diego, Calif.
(Member St. Louis Medical Society)
Ector, Henry J., Mexico
Edele, Eugene H., St. Louis
Edelman, Alan H., St. Louis
Edmonds, Robert W., Sedalia
Edwards, D. R., Sedalia
Edwards, Francis L., Monett
Edwards, James E., St. Louis
Edwards, Joseph C., St. Louis
Edwards, Theodore F., Kansas City
Edwards, Waldo B., Kirkwood
Efron, Joseph, St. Louis
Efstathianos, Kimon, St. Louis
Egan, Robert C., St. Louis
Egan, Thomas F., St. Louis
Eggers, George W. N., Jr., Columbia
Eggleston, Donald E., Macon
Eggleston, Thomas F., St. Louis
Eidelman, Jack R., St. Louis
Eigel, Edwin G., St. Louis
Eimer, Charles E., St. Louis
Eisemann, Gustave, Kansas City
Eisenmann, Benjamin P., New Haven
Ekern, H. Peter, Mexico
Eklund, Alfred W., Pleasant Hill
Eldenburg, Donald, Sedalia
Elders, Frank A., Jr., Cuba
Elias, David J., Independence
Eliasson, Sven G., St. Louis
Eliscu, Juliette, Joplin
Elkins, Ronald F., Springfield
Eller, C. Howe, Clayton
Ellersieck, Dorothy M., St. Louis
Ellett, William H., Appleton City
Ellfeldt, Howard J., Kansas City
Elliott, Raymond G., Kansas City
Elliott, Wade E., Kansas City
Ellis, Calvin C., St. Louis
Ellis, Francis J., Springfield
Ellis, Harry L., Springfield
Ellison, Leroy E., Warren, Ark.
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Ellsasser, James C., Norfolk, Va.
(Member St. Louis Medical Society)
Ellsworth, Willard, Cainsville
Elrod, Dennis B., Cape Girardeau
Elser, Otto H., Independence
Elson, Julius, St. Louis
Emerson, Reynolds L., St. Louis
Emery, Frank E., Springfield
Emmert, Fred, St. Louis
Empsom, Charles L., Kansas City
Engel, Lawrence P., Kansas City
Engelhardt, Robert C., Poplar Bluff
Engelking, David F., Kansas City
Engelmann, Calvin E., Kansas City
English, Milton T., Jr., Kirksville
English, Wallace D., Cardwell
Engman, Martin F., Jr., St. Louis
Enloe, L. David, Jefferson City
Ernst, Edwin C., Jr., St. Louis
Ernst, Joseph G., St. Louis
Ernst, Richard E., St. Louis
Ernst, Roland P., St. Louis
Eshelman, Albert D., Independence
Esslinger, Arthur T. J., St. Louis
Estes, Albert M., Cape Girardeau
Estes, Jack M., St. Louis
Esther, John R., Joplin
Etienne, Robert B., St. Louis
Eto, Jackson, St. Louis
Eubank, David F., Kansas City
Eubank, Dillard M., Raytown
Eubank, William R., Kansas City
Eubank, William Y., Kansas City
Evans, Ezra L., Jr., Springfield
Evans, Harry T., Branson
Evans, Lawrence L., Kansas City
Evens, Ronald G., St. Louis
Eversoll, Norton J., Hollywood, Fla.
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Exarhou, Klark, St. Louis
Exon, C. Stuart, Jefferson City
Eyermann, Charles H., St. Louis
Eyermann, Edward L., Jr., St. Louis
Eyermann, H. Walter, Warrenton

F

Fair, William L., Chillicothe
Fairchild, James F., Perryville
Fairshter, Alex E., St. Louis
Fakhoury, Donald A., Kansas City
Falk, O. P. J., St. Louis
Fallon, Richard H., St. Louis
Farley, Claude C., Kansas City
Farmer, Norma D., Farmington
Farney, Jacob P., Kansas City
Farnham, Milo M., Independence
Farnsworth, Jesse J., Kansas City
Farrell, Robert J., St. Louis
Farrell, S. L., Washington
Farthing, Fred R., Springfield
Farthing, Gene W., Springfield
Fax, Nancy C., Kansas City
Fee, Chester F., Kansas City
Feierabend, Frank L., Kansas City
Feind, Earl E., Rolla
Feinstein, Leon A., St., Louis
Feist, George V., Kansas City
Felder, James P., St. Charles
Feldman, David, St. Louis

Felix, Robert H., St. Louis
Feller, Harold H., St. Louis
Fellhauer, Carl M., St. Louis
Feltz, Lawrence W., Perryville
Ferguson, Donald S., Kansas City
Ferguson, John L., Springfield
Ferguson, John P., Jr., Springfield
Ferguson, L. H., Jr., Joplin
Ferguson, Luther J., St. Joseph
Ferguson, Ralph L., Joplin
Ferguson, Robert M., Webb City
Ferguson, Thomas B., St. Louis
Ferguson, Wilson J., Sikeston
Ferneau, James E., Columbia
Ferrara, John P., St. Louis
Ferrell, Thomas E., Jr., Springfield
Ferris, Carl R., Kansas City
Ferro, Anthony L., St. Louis
Ferry, Richard J., St. Louis
Finger, Donald H., St. Louis
Fingerhood, Marvin G., St. Louis
Fingert, Hyman H., St. Louis
Fink, LeRoy L., Florissant
Finkel, Barney W., St. Louis
Finkle, Robert H., Independence
Finley, Freeman L., St. Cloud, Fla.
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Finn, Murray E., St. Louis
Finnegan, Joseph V., St. Louis
Fischer, Edward H., N. Kansas City
Fischer, Erich, St. Louis
Fischer, John R., Clayton
Fischer, Martin J., St. Joseph
Fischer, Theodore, Altenburg
Fischer, Thomas J., Hannibal
Fish, Richard., St. Louis
Fish, Virgil O., St. Louis
Fisher, Joseph L., St. Joseph
Fisher, Stanley D., Sedalia
Fishman, Marvin A., St. Louis
Fitch, G. H. Max, Springfield
Fitch, Coy D., St. Louis
FitzGerald, Leo P., St. Louis
Fitzgerald, Robert H., Kansas City
Fitzgerald, William T., St. Louis
Flance, Israel J., St. Louis
Flanders, Virgil E., Kansas City
Flanigan, George D., Jr., St. Louis
Flatley, John A., Kansas City
Flavan, David B., St. Louis
Fleishman, Alfred, St. Louis
Fleming, J. Will, Moberly
Fleming, Paul D., St. Louis
Fleming, Robert J., St. Charles
Fleming, Thomas S., Moberly
Fletes, James W., St. Louis
Flotte, Bernard H., St. Louis
Flotte, Sylvester A., Jennings
Flynn, Edward P., St. Louis
Flynn, James M., Kansas City
Flynn, John T., St. Louis
Flynn, Joseph E., St. Louis
Flynn, Thomas T., St. Louis
Fogerson, Virginia L., Springfield
Folck, William P., Kansas City
Folkner, A. L., Warrensburg
Ford, Lee T., Jr., St. Louis
Ford, William, Farmington
Foreman, Phillip B., Hannibal
Forgrave, John R., St. Joseph
Forgrave, Leon P., St. Joseph
Forman, George W., St. Joseph
Forman, Louis H., Kansas City
Forsen, James A., Gower
Forsman, Waldo W., Jr., St. Louis
Forster, Armand C., St. Louis
Forsyth, B. Todd, St. Louis
Forsythe, Robert W., Kansas City
Forti, John J., St. Louis
Foster, Jack L., Desloge
Fotopoulos, Chris K., North Kansas City
Fouts, Dallas B., Sr., Independence
Fowler, Fred D., Kansas City
Fowler, I. Charles, N. Kansas City
Fowler, James W., Kansas City
Fowler, Marvin L., West Plains
Fox, Leon J., St. Louis
Fox, Robert E., St. Louis
Francis, William C., Springfield
Francka, W. Frank, Hannibal
Franco, Pilar Juan, Kansas City
Frank, Alvin R., St. Louis
Franklin, Curtis U., Kansas City
Franklin, Harold A., St. Louis
Franklin, Max S., St. Louis
Fraser, Richard A., Bonne Terre
Frawley, Thomas F., St. Louis
Frazier, Robert L., Charleston
Frederick, Raymond O., St. Louis
Freedman, Harold, St. Louis
Freedman, Ruth S., St. Louis
Freeman, David M., St. Louis
Freeman, Spencer L., Kirksville
Freiheit, Harold J., St. Louis
Freiman, S. Michael, St. Louis
Freimuth, L. E., St. Louis
Frein, Donald E., Harrisonville
Frerking, Herbert W., St. Louis
Freund, Samuel J., St. Louis
Frick, John P., Kansas City
Friedman, Bernard, St. Louis
Friedman, Ira J., St. Louis
Friedman, Morris L., Kansas City
Friedman, Paul L., St. Louis
Friedman, Robert H., St. Louis
Friedrich, Ernst R., St. Louis
Fries, Armand D., St. Louis
Fries, John W., St. Louis
Friskel, Arthur K., St. Louis
Fritsch, Andrew J., Joplin
Fritzlen, Thomas J., Kansas City
Froelich, Edwin J., Lebanon
Froelich, R. W., Lebanon
Froelich, Robert E., Columbia
Frumson, Guy H., St. Louis
Fryer, Minot P., St. Louis
Fuchs, George J., Barnett
Fuchs, George J., Jr., Columbia
Fuhrman, Donald L., Kansas City
Fujita, Milton T., St. Louis
Fulkerson, Wilbur E., Higginsville
Fulks, Richard B., California
Fullgrabe, Emil A., Jefferson City
Fulton, Albert E., Kansas City
Funsch, Robert E., St. Louis
Furla, Gus J., St. Louis
Furlow, Leonard T., Crystal River, Fla.
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Fury, Tex E., Kansas City
Fuson, Levi H., St. Joseph
Fuson, William A., Trenton

G

Gaffney, Caldwell J., St. Louis
Gafney, George T., St. Louis
Gagliardo, Joseph, St. Louis
Gaines, Quentin M., Kirkwood
Gainey, Harold L., Kansas City
Gaitonde, Mangesh R., Kansas City
Galbol, Harley, Excelsior Springs
Galbreath, Ashford M., Kansas City
Gale, Arthur H., Overland
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Kister, George E., St. Charles
Kistner, William F., St. Louis
Kitchen, William M., Kansas City
Klaff, Daniel D., St. Louis
Klaus, Hanna, St. Louis
Klebba, Larry B., Jefferson City
Klein, Andrew G., St. Louis
Klein, Arnold G., St. Louis
Klein, Bert H., St. Louis
Klein, Edward H., Prairie Village, Kan. (Member Jackson County Medical Society)
Klein, Saul J., St. Louis
Kleinschmidt, Clinton, St. Louis
Klenk, Charles L., St. Louis
Kline, Carlyn M., St. Joseph
Kline, Edmund W., St. Joseph
Klinge, Frederick W., St. Louis
Klingner, George M., Springfield
Klingner, George M., Jr., Springfield
Klinkerfuss, George H., St. Louis
Klippel, Allen P., St. Louis
Klippel, Bernhardt W., St. Louis
Kloecker, Richard J., St. Louis
Kloecker, Robert P., St. Louis
Knabb, Arthur D., Springfield
Knabb, Henry F., Jr., Springfield
Knabb, Kenneth E., Springfield
Kneal, E. Ellsworth, St. Louis
Kneibert, Fred L., Poplar Bluff
Knepper, Paul A., St. Joseph
Knese, Luke A., Cypress, Calif. (Member St. Louis Medical Society)
Knight, Franklin P., St. Louis
Knight, John S., Kansas City
Knight, Lyle B., Lee's Summit
Knight, William A., Jr., St. Louis
Knipschild, Bedford F., Marshall
Knoch, H. Kermit, Kansas City
Knock, Henry L., Kirkwood
Knowles, R. R., St. Louis
Knowlton, Norman P., Jr., St. Louis
Koch, Robert E., Clayton
Koehler, Charles A., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Koehler, George A., St. Louis
Koehler, John W., Joplin
Koehler, P. Ruben, St. Louis
Koenig, Marvin I., St. Louis
Koerner, Kenneth A., St. Louis
Koessel, Arthur W., St. Louis
Kohler, Eugene J., St. Louis
Kohler, Louis H., St. Louis
Kolker, Allan E., St. Louis
Kolze, Vernon W., Springfield
Komanetsky, William M., St. Louis
Konzelmann, John A., St. Louis
Koon, Ben H., Bolivar
Koontz, Paul G., Kansas City
Kopp, Jules H., St. Louis
Kopp, Leonard J., St. Louis
Koppenbrink, Walter E., Jr., Higginsville
Korenblat, E. Phillip, St. Louis
Korn, Robert L., Clayton
Korth, William M., Sarasota, Fla. (Member Jackson County Medical Society)
Kotner, Lawrence M., St. Louis
Kouchoukos, Nicholas T., Birmingham, Ala. (Member St. Louis Medical Society)
Koutsoumpas, William V., St. Louis
Kovac, S. Robert, St. Louis
Kowert, Edward H., St. Louis
Kozal, Francis L., Crystal City
Kozlowski, Albert E., St. Louis
Kraft, Jacob, Kansas City
Kramer, Fred, St. Louis
Kramolowsky, Helmuth H., St. Louis
Kraner, Justin F., St. Louis
Kranson, Seymour J., Independence
Kratz, Paul E., Cape Girardeau
Krause, G. Lynn, Jr., St. Louis
Krieger, John L., St. Louis
Krebs, Joseph M., Clayton
Krojanker, Rolf, St. Louis
Kromer, Charles, St. Louis
Kronemer, Norton S., St. Louis
Krueger, Haven C., Kansas City
Kubin, Milford T., Columbia
Kuczer, Arnoldo, Villa Park, Ill. (Member St. Louis Medical Society)
Kuebrich, Thomas C., Ferguson
Kuehner, Marvin E., Red Wing, Minn. (Member St. Louis Medical Society)
Kuenzi, Donald E., Kansas City
Kuhlman, Robert E., St. Louis
Kuhn, John R., Jr., Joplin
Kuhn, Nobuko O., St. Louis
Kuhn, William F., II, Kansas City
Kulowski, Jacob, St. Joseph
Kurth, Robert K., St. Louis
Kurz, Rudolph F., Alton, Ill. (Member St. Louis Medical Society)
Kutryb, Walter J., St. Louis
Kuttner, Marianne, St. Louis
Kyger, John E., Independence

L

Lachance, Leopold, Centralia
Lacy, Paul E., St. Louis
Ladd, Charles B., St. Louis
Ladenson, Roland P., Columbia
LaDriere, Raymond J., Creve Coeur
Ladyman, George H., Poplar Bluff
LaHue, William C., Tampa, Fla. (Member Lafayette-Ray County Medical Society)
Laird, John M., Jr., Florissant
Lally, James J., Kansas City
Lam, Robert L., St. Louis
Lamar, Robert F., Kansas City
Lamb, Wanda, St. Louis
Lambert, Marian, Kansas City
Lambie, Rodger W., Kansas City
Lampton, Lawrence M., Kansas City
Lamy, John E., Sedalia
Landau, William M., St. Louis
Landers, Burnell, Kansas City
Landhuis, L. R., Columbia
Landis, George K., Kansas City
Landry, J. Hubert, St. Louis
Lane, Clinton W., St. Louis
Lane, Daniel K., St. Louis
Lane, Jerald P., Minneapolis, Minn. (Member West Central Missouri Medical Society)
Laney, Roland L., Carlsbad, Calif. (Member Jasper County Medical Society)
Lang, John J., St. Louis
Lange, Adolph C., St. Louis
Langeluttig, Harry V., Jr., Nevada
Langhus, Melvin O., N. Kansas City
Langston, Walter R., Springfield
Lanier, Earl W., St. Louis
Lankford, Harold D., Mexico
Lanning, Richard C., Ste. Genevieve
Lanning, Richard J., Kansas City
Lanning, Robert J., Hannibal
Lansche, Elmer A., St. Louis
Lansche, W. Edward, St. Louis
Lapi, Angelo, Shawnee Mission, Kan. (Member Jackson County Medical Society)
Lapp, Harry C., Kansas City
Larimore, Joseph W., St. Louis
Larkin, Rosemary R., St. Louis
Larocca, Felix E. F., St. Louis
Larsen, Kenneth V., St. Louis
Larson, Paul U., St. Louis
Lassar, Gilbert N., St. Louis
Latham, Kenyon S., California
Latham, Raymond W., Kansas City
Latimer, Walter N. A., Hannibal
Lau, Luis, St. Louis
Lauber, Joseph J., St. Louis
Lauer, Daniel J., Kansas City
Lauer, John D., St. Louis
Laux, France A., St. Louis
Lawrence, George H., St. Louis
Lawrence, John R., Marshall
Lawton, John T., St. Louis
Lawton, Lawrence M., St. Louis
Layle, John K., Jr., Kansas City
Layton. Ira C., Kansas City
Leach, Jon R., Maryville
Leagus, Charles J., Jr., Springfield
Leahy, John G., St. Louis
LeBlanc, Leo J., St. Louis
L'Ecuyer, Jerome L., St. Louis
Lederer, Charles M., Warrensburg
Lederman, Joseph, St. Louis
Lee, Carleton H., St. Joseph
Lee, Henry A., Kansas City
Lee, James B., St. Louis
Lee, King Ying, Kansas City
Lee, Yeu-Tsu, Columbia
Leech, Charles A., Columbia
Leech, Maurice P., Fayette
Leeper, Sidlee W., Columbia
Legan, John K., Kennett
Lehman, Philip C., St. Joseph
Lehman, Ralph A. W., St. Louis
Lehner, Richard L., Kansas City
Leidinger, Karl J., Republic
Leifer, William W., Kansas City
Leightner, William, St. Louis
Leitch, Cecil G., Blue Springs
Lembeck, Joseph A., St. Louis
Lemmon, George B., Springfield
Lenobel, Milton I., Clayton
Lentz, Clark H., Kansas City
Lentz, Harold C., Neosho
Leo, William A., Kansas City
Leonhardt, Erwin M., St. Louis
Leroux, Gene H., Doniphan
Lerwick, Everett R., St. Louis
Leslie, Charles H., Kirkwood
Leslie, J. Paul, Jefferson City
Leslie, James T., Jr., Jefferson City
Levey, Harry B., Kansas City
Levey, Simon A., St. Louis
Levin, Marvin E., St. Louis
Levitt, Joseph, St. Louis
Levy, Irwin, St. Louis
Levy, Jerome F., St. Louis
Levy, Morton A., St. Louis
Lewellen, Charles H., Louisiana
Lewin, Wilbur H., St. Louis
Lewis, Charles R., St. Louis
Lewis, James E., Jr., St. Louis
Lewis, Noel R., Springfield
Lewis, Ray B., Columbia
Lewis, Revis C., Kansas City
Leydig, Stanley M., St. Louis
Liang, Howard S., St. Louis
Lichtor, Alexander, Kansas City
Lichtor, Joseph M., Kansas City
Lichty, Charles A., Shelbina
Lieb, Otto, St. Louis
Lieberman, B. Albert, Jr., Kansas City
Lieberman, David M., St. Louis
Liese, Grover B., St. Louis
Lilly, Douglas R., St. Louis
Lilly, Terry E., Jr., Kansas City
Lindberg, Donald, Columbia
Lindeman, Carl H., St. Louis
Lindeman, John, St. Louis
Lindgren, Carleton J., Independence
Lindquist, Carl N., Reeds Spring
Link, Alexander J., St. Louis
Link, Vance E., Independence
Linsenmeyer, Charles M., St. Charles
Linville, Howard E., Kansas City
Lipschitz, Ervin, St. Louis
Lipsitz, Ellis S., St. Louis
Lischer, Carl E., St. Louis
Lissner, Arthur B., St. Louis
Little, Monroe H., St. Louis
Littlejohn, Robert T., Kansas City
Littmann, Lewis E., St. Louis
Litton, Lyle D., Springfield
Litton, Lynn O., Columbia
Litwiller, R. W., Columbia
Litzow, Louis T., St. Louis
Lloyd, Ivan E., Kansas City
Lockhart, Charles E., Springfield
Lodwick, Gwilym S., Columbia
Loeb, Richard H., Springfield
Loeb, Virgil, Jr., St. Louis
Loeffel, Ellen S., St. Louis
Loewenstein, Joseph E., St. Louis
Logue, John T., Columbia
Lohmar, Roland E., Columbia
Lohr, Curtis H., St. Louis
Lohr, Robert W., St. Louis
Lohrentz, Lois H., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Loitman, Bernard, St. Louis
Londe, Alan M., St. Louis
Londe, Sol, St. Louis
London, Stanley L., St. Louis
Lonergan, Warren M., St. Louis
Long, Curtis W., Butler
Long, David S., Harrisonville
Long, Frank B., St. Louis
Long, R. Stacy, Kansas City
Long, Robert W., St. Louis
Longenecker, Joe L., Joplin
Lonsway, Maurice J., St. Louis
Lonsway, Maurice J., Jr., St. Louis
Lopez, Fernando, Thomasville, Ga. (Member Buchanan County Medical Society)
LoPiccolo, Vincent J., St. Louis
LoPiccolo, Vincent J., Jr., St. Louis
Lord, Richard E., St. Louis
Lorenc, Ernest, Springfield
Loriga, Martin S., St. Louis
Lotito, Carlos A., Kansas City
Lottes, James O., St. Louis
Loughead, John R., Poplar Bluff
Loutzenhiser, James K., Kansas City
Lovett, Robert L., Springfield
Lovinggood, Thomas A., Cape Girardeau
Lowe, Alvin L., Sedalia
Lowe, Horace A., Jr., Springfield
Lowell, Paul, Kansas City
Lowenstein, Paul S., St. Louis
Lowrey, Ford J., Kansas City
Lowther, Gerald S., Ballwin
Loyd, Earl L., Jefferson City
Lucas, G. Elden, St. Louis

Lucido, Joseph L., St. Louis
Lucke, Eugene M., Hannibal
Luckenbill, Paul T., Plattsburg
Luedde, Fullerton W., St. Louis
Luedde, Philip S., St. Louis
Luehrs, Robert O., St. Louis
Lugo, Samuel, Florissant
Luh, Andrew, St. Louis
Lukens, John N., Jr., Columbia
Lum, Jon Tek, St. Louis
Lund, Herluf G., St. Louis
Lund, Robert H., Clayton
Lundblad, Daniel M., Ballwin
Lurie, Harold H., Springfield
Lusk, Charles A., Jr., Butler
Luter, Carter W., Butler
Luther, George A., St. Louis
Lutkewitte, Joseph F., Ste. Genevieve
Lutz, Martin H., St. Louis
Lyddon, Harold R., Jr., Kansas City
Lyle, Robert R., Versailles
Lyman, Edward H., St. Louis
Lynxwiler, Chester P., St. Louis
Lyss, Carl, St. Louis
Lytle, William R., Rolla
Lyttle, Garnet C., St. Louis
Lytton, George J., Kansas City

Mc

McAdam, Charles R., St. Louis
McAfee, C. Alan, St. Louis
McAfee, R. Gordon, Kansas City
McAlhany, Howard J., Springfield
McAlister, William H., St. Louis
McArtor, Thomas R., Browning
McBurney, Charles A., Slater
McCaffree, Mary K., St. Joseph
McCall, Edwin L., Kimberling City
McCalla, John P., Kansas City
McCallister, Ben D., Kansas City
McCann, John F., St. Louis
McCann, Louis P., Nevada
McCanse, Andrew, Kansas City
McCarroll, Henry R., St. Louis
McCarthy, John M., St. Louis
McCarthy, Thomas D., Ferguson
McCaughan, John M., New London, Conn.
(Member St. Louis Medical Society)
McClanahan, Robert C., Kansas City
McCloskey, R. Bruce, Webster Groves
McClure, David N., Clayton
McClure, James N., Jr., St. Louis
McCool, James F., Jr., St. Louis
McCool, Stanley G., St. Louis
McConchie, James E., Independence
McCorkle, E. Lee, Marshall
McCormick, James E., Kansas City
McCormick, Vincent D., San Francisco, Calif.
(Member St. Louis Medical Society)
McCown, Allan H., St. Louis
McCoy, Donald L., Marshall
McCoy, Frederick J., Kansas City
McCoy, Warren R., Caruthersville
McCracken, Samuel R., Excelsior Springs
McCraw, Doyle C., Bolivar
McCray, Glen M., Kansas City
McCubbin, Clarence R., Leawood, Kan.
(Member Jackson County Medical Society)
McCullough, Campbell C., Kansas City
McDaniel, John R., St. Joseph
McDermott, Alfred E., Perryville
McDonald, Eugene F., Jackson
McDonald, Victor G., Jr., Kansas City
McDonald, Wilbur P., St. Joseph
McDonnell, John F., Kansas City
McDonough, John, St. Louis
McElroy, Glenn L., Columbia
McFadden, Gene A., Waverly
McFadden, James F., Jr., St. Louis
McFadden, James F., Sr., St. Louis
McFarland, H. Richard, Kansas City
McFarland, Morris D., Kansas City
McGannon, Paul T., Kansas City
McGinnis, Byron J., St. Louis
McGinnis, William F., St. Louis
McGinty, Charles P., Cape Girardeau
McGuire, Thomas H., Kansas City
McHaney, John W., Jefferson City
McIntosh, Donald E., Kansas City
McIntyre, John D., Kansas City
McKaskle, Clarence W., Caruthersville
McKee, Howard B., Joplin
McKee, Oliver A., Kirkwood
McKee, Wallace P., Kansas City
McKinney, Joseph K., St. Louis
McKinsey, John J., Springfield
McKinstry, Karl V., DeSoto
McKnelly, William V., Jefferson City
McKnelly, William V., Jr., Kansas City
McLain, Bobby M., Poplar Bluff
McLane, Jerry F., Poplar Bluff
McLean, Harry A., St. Louis
McLean, Royal C., St. Louis
McLeod, John, Kansas City
McMahon, Bernard J., Clayton
McMillan, Thomas E., Kansas City
McMurray, Herbert C., Manchester
McNalley, Frank P., Clayton
McNalley, Michael, St. Louis
McNamara, John J., Richmond Heights
McNeel, Lee A., Jr., Greenfield
McNutt, Theodore L., Kansas City
McPhee, William R., Kansas City
McPheeters, James W., Poplar Bluff
McPike, Lloyd H., Joplin
McQueen, Samuel, St. Louis
McSwiney, John G., St. Louis
McVay, James R., Kansas City
McVay, James R., Jr., Kansas City
McWherter, Lottie B., Kansas City, Kan.
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M

Maben, Sam Edward, Kansas City
Mabrey, John P., Plattsburg
Macauley, Bernard J., Poplar Bluff
MacBryde, Cyril M., St. Louis
Maccubbin, Don A., Kansas City
MacDonald, Robert R., Jr., Chesterfield
Macdonald, William C., St. Louis
Macdonnell, Thomas M., Marshfield
MacGee, Edwin E., Kansas City
Machek, Otakar, St. Louis
MacInnis, Florence E., Kansas City
Mack, Mary L., address unknown
MacLaughlin, James C., Joplin
MacNaughton, Ralph E., Kansas City
MacNaughton, Robert A., Leawood, Kan.
(Member Jackson County Medical Society)
Macnish, James M., St. Louis
Macon, William L., Jr., St. Louis
Maddox, Albert R., Sedalia
Maddox, John D., Joplin
Maddux, William P., Springfield
Madrid, Dominador, St. Louis
Magaletta, George E., Cape Girardeau
Magee, Charles D., St. Louis
Magee, Robert L., El Dorado Springs
Magee, William E., St. Louis
Magidson, Joseph, St. Louis
Magill, Joseph S., Milan
Maginn, R. Reilly, St. Louis
Maginn, Richard L., St. Joseph
Magness, Guy N., University City
Magness, William C., Branson
Magrinat, Gaston, St. Louis
Mahe, George A., St. Louis
Maher, Robert W., Springfield
Maher, Thomas F., St. Louis
Mainz, David L., Fredericktown
Maizus, Saul H., St. Louis
Malles, A. Conrad, Ballwin
Manansala, Antonio Q., St. Louis
Mandler, George, Chillicothe
Manganaro, Frank J., St. Louis
Mangels, Kenneth A., Independence
Mangelsdorf, Thomas K., St. Louis
Manion, Peter J., St. Louis
Manley, Charles B., Jr., St. Louis
Mann, James K., Hannibal
Mannis, Ben G., Houston, Tex.
(Member St. Louis Medical Society)
Mansur, Edward E., Stuart, Fla.
(Member Cole County Medical Society)
Mantell, Jack M., Springfield
Mantz, Frank A., Kansas City
Maple, Francis M., Springfield
Maravilla, Levy M., St. Louis
Marco, Philip J., Malibu, Calif.
(Member Boone County Medical Society)
Marcus, Morris D., St. Louis
Mardini, Edward E., Bonne Terre
Margolis, Richard M., St. Louis
Marienfeld, Carl J., Columbia
Markel, Arthur D., Poplar Bluff
Markel, Larry G., Kansas City
Marks, Mark M., Kansas City
Marmet, Ruben, St. Louis
Marmor, William A., St. Louis
Mars, Hartley F., Forsyth
Marsh, Alice, Pleasant Hill
Marsh, Wallace S., New Orleans, La.
(Member Clay County Medical Society)
Marshall, Cameron F., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Marshall, Hal E., Kansas City
Marshall, William G., Glasgow
Marston, F. James, Jr., St. Joseph
Martel, Dominique, St. Louis
Martin, Andrew D., Sikeston
Martin, Clyde V., Kansas City
Martin, Daniel C., Kansas City
Martin, Daniel J., St. Louis
Martin, Forrest L., Nevada
Martin, Frederick W., Jr., St. Louis
Martin, J. Barlow, St. Louis
Martin, James M., Kirkwood
Martin, John N., St. Joseph
Martin, Maynard W., Houston, Tex.
(Member St. Louis Medical Society)
Martin, Richard H., Columbia
Martin, W. Joe, Louisiana
Martz, John C., St. Louis
Mason, Wayne E., Kansas City
Massie, Edward, St. Louis
Masters, William H., St. Louis
Masterson, Byron J., Kansas City
Masucci, Joseph M., Kansas City
Matteson, Frank B., Grant City
Matthews, John G., St. Louis
Matthews, John I., Jefferson City
Mattis, Robert D., Clayton
Maughs, Sydney B., St. Louis
Max, Paul F., St. Louis
Maxey, Hugh W., Jefferson City
Maxson, T. Reed, Warrensburg
Maxwell, Richard W., St. Louis
May, Albert L., Jr., Poplar Bluff
May, Mark, St. Louis
Mayer, John H., St. Louis
Mayer, John H., Jr., Kansas City
Mayer, Robert A., St. Louis
Mayer, William D., Columbia
Mayfield, James L., Crystal City
Mays, Frank G., Washington
Mead, Samuel T., Concordia
Meador, James R., St. Louis
Meagher, Arthur J., St. Louis
Medler, Francis J., St. Louis
Medler, John F., St. Louis
Medlicott, William J., Kansas City
Meegan, Robert J., Kansas City
Mehan, Donald J., St. Louis
Meier, Francis X., Jefferson City
Meinberg, William H., St. Louis
Meiners, Paul N., St. Louis
Meiners, Theodore M., St. Louis
Meinershagen, Charles W., Jefferson City
Melburn, Colleen M., Houston, Tex.
(Member St. Louis Medical Society)
Melendez, J. Richard, Kansas City
Melgaard, S. Ross, Kansas City
Melick, William F., St. Louis
Menchetti, Don E., Springfield
Mendelsohn, Robert S., St. Louis
Mendelson, David F., St. Louis
Menendez, Manuel F., St. Louis
Menendez, Silvana, St. Louis
Mendonsa, Lawrence E., St. Louis
Meneses, Orlando G., St. Louis
Menne, Marvin G., Ironton
Merenda, Sam J., St. Louis
Merideth, Mary Jane, Cassville
Meriwether, Don R., Mission, Kan.
(Member Jackson County Medical Society)
Merklin, Anton L., St. Louis
Merrims, Theodore, St. Louis
Merritt, Burch A., St. Louis
Merz, Jean J., St. Louis
Mestres, Hugh M., St. Louis
Metz, Charles O., St. Louis
Metzgar, Marshall T., Columbia
Metzl, Kurt, Kansas City
Meyer, Herman M., St. Louis
Meyer, James E., Manchester
Meyer, Jay, Frontenac
Meyer, John S., St. Louis
Meyer, Melvin E., St. Louis
Meyer, Paul W., Kansas City
Meyers, Harold L., Kansas City
Meyers, John B., Clayton
Meyers, Robert W., St. Louis
Meyers, Rosellen C., St. Louis
Mezera, Raymond A., St. Louis
Michael, Harvey R., Springfield
Michael, Kenneth D., St. Louis
Michael, Vernon E., St. Louis
Michaelree, John F., St. Louis
Middleton, John W., Louisiana
Mier, Thomas M., St. Louis
Miksicek, John E., St. Louis
Milder, Benjamin, St. Louis
Miles, George O., Kansas City
Miles, Glenn E., Louisiana
Miles, Paul W., St. Louis
Mill, William B., Jr., Springfield
Miller, Charles, Jr., Kirkwood
Miller, Clinton L., Lee's Summit
Miller, Clyde S., Waynesville
Miller, D. Herbert, Muskogee, Okla.
(Member Chariton-Macon-Monroe-Randolph County Medical Society)

Miller, David V., Poplar Bluff
Miller, Edward J., St. Louis
Miller, Geoffrey W., St. Louis
Miller, Gerald L., Kansas City
Miller, Harold W., Willow Springs
Miller, James E., St. Louis
Miller, James R., St. Louis
Miller, Jule P., Jr., St. Louis
Miller, Leroy J., Columbia
Miller, Max I., Kansas City
Miller, Norman C., St. Louis
Miller, Oliver J., Cape Girardeau
Miller, Robert N., St. Louis
Miller, Wilson H., Kansas City
Millikin, Lester A., St. Louis
Milne, J. L., Springfield
Milster, Clyde R., St. Louis
Miltenberger, Paul C., Kennett
Minnigerode, Lana, Columbia
Minnigerode, Turner L., Columbia
Minnihan, Robert W., Chesterfield
Minton, Robert S., Fortescue
Mirbaha, Mitchell M., St. Louis
Mishkin, Marvin R., St. Louis
Miskovsky, Emil F., St. Louis
Missey, Wilburn C., Jr., St. Louis
Mitchell, Andrew D., Kansas City
Mitchell, Franklin L., Columbia
Mitchell, Lynn D., Columbia
Mitchell, Robert H., Kansas City
Mitchell, Roy E., Salem
Mitchell, Thomas J., St. Clair
Mitra, Nirmal K., Kansas City
Mixson, William C., Kansas City
Moellenhoff, Robert W., Washington
Moen, Berwyn H., St. Joseph
Moffett, James B., Poplar Bluff
Molden, Charles A., St. Louis
Molony, Basil A., St. Louis
Momtazee, Sam, St. Louis
Monafo, William W., Jr., St. Louis
Monat, Seymour, St. Louis
Montani, Charles, St. Louis
Montello, Samuel A., Kansas City
Montes, Arturo C., Baden
Montes-de-Oca, Julio, St. Louis
Montgomery, Austin F., Brentwood
Montgomery, James G., Kansas City
Moon, Thomas R., Jr., St. Louis
Mooney, Justin L., Kansas City
Mooney, Marcel L., Kansas City
Moore, Allen H., Jr., Branson
Moore, Alva, St. Louis
Moore, Carl V., St. Louis
Moore, Harry G., St. Louis
Moore, Harry G., Jr., St. Louis
Moore, Robert A., Kansas City
Moore, Walter L., St. Louis
Moore, William E., Normandy
Moranville, Benedict A., Columbia
Moranz, John W., St. Louis
Moreano, Armando H., Kansas City
Morehead, William E., Malden
Morest, F. Stanley, Cape Girardeau
(Member Jackson County Medical Society)
Morgan, David B., Kansas City
Morgan, Harry C., St. Louis
Morgan, Philip E., Jefferson City
Morgan, Troy O., Jr., Albany
Morgan, W. Thomas, Jr., West Plains
Morley, Louise A., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Morrin, Kevin C., St. Louis
Morris, Alan H., St. Louis
Morris, Harvey E., St. Louis
Morris, Joseph H., Jr., Kansas City
Morris, Mary E., St. Louis
Morrison, Arlen, Clayton
Morrison, Donald H., Kansas City
Morrison, T. A., Aurora
Morse, John P., St. Joseph
Morse, Marvin, St. Joseph
Mortensen, Frede, St. Louis
Morton, Paul C., Springfield
Mosby, Larry Dee, Columbia
Moseley, F. Thomas, Springfield
Moses, Robert A., St. Louis
Moss, Paul, Kansas City
Mosser, Robert S., Kansas City
Mothershead, John L., St. Joseph
Motzel, Albert J., St. Louis
Mount, Allan, Independence
Mountjoy, Grace S., St. Louis
Mowrer, Mario O., St. Louis
Mowrey, William O., Jennings
Muckerman, Richard I. C., St. Louis
Mudd, J. Gerard, St. Louis
Muehlberger, James J., Kansas City
Muelheims, Gerhard H., St. Louis
Mueller, Clarence E., St. Louis
Mueller, Joseph A., St. Louis
Mueller, Martin J., Kansas City
Mueller, Morris A., St. Louis
Mueller, Robert, St. Louis
Mueller, Robert J., St. Louis
Mueller, Wilbur K., St. Louis
Muench, Albert H., St. Joseph
Muenster, Vincent P., St. Charles
Muether, Raymond O., St. Louis
Mullarky, Wilbur A., Chesterfield
Mullen, Jack, Bonne Terre
Mullen, Leo M., Kansas City
Mulligan, Leo V., St. Louis
Mullinax, Orr, St. Joseph
Mullins, Bernard L., N. Kansas City
Mullins, John E., St. Louis
Multhauf, Cyril J., Kansas City
Mundy, Homer F., St. Joseph
Mundy, William L., Kansas City
Munsch, Girard A., St. Louis
Murdock, Nathaniel H., St. Louis
Murney, Joseph A., Washington
Murphy, Bernard L., Hannibal
Murphy, George E., St. Louis
Murphy, James J., Kansas City
Murphy, James P., St. Louis
Murphy, John C., St. Louis
Murphy, Paul, St. Louis
Murphy, Robert J., Kansas City
Murray, Wilber L., Kansas City
Muschany, Norman K., St. Louis
Musgrave, David E., Excelsior Springs
Muth, Robert G., Kansas City
Mutshnick, Clara P., St. Louis
Myers, Ivan T., Arnold
Myers, James M., Rolla
Myers, John S., Kansas City
Myers, Robert M., Kansas City

N

Nahm, Chung Chick, St. Louis
Naime, Mansour J., Kansas City
Nakada, James R., St. Louis
Napper, Marvin L., Springfield
Naryka, Joseph J., St. Louis
Nash, Helen E., St. Louis
Nathan, Lester J., St. Louis
Neal, M. Pinson, Columbia
Near, David M., Florissant
Needels, Orval T., Kansas City
Neilson, Arthur W., St. Louis
Nelson, Bentley A., Kansas City
Nelson, J. Roger, Kirkwood
Nelson, James S., St. Louis
Nemec, Stanley S., St. Louis
Ness, Carl K., St. Joseph
Nesselrode, John H., Independence
Nester, Charles A., St. Louis
Neu, Leo T., Jr., Springfield
Neubeiser, Ben L., St. Charles
Neumann, James W., Kansas City
Neun, William F., St. Louis
Newcomb, Arthur D., Fredericktown
Newman, Matthew, St. Louis
Newman, Percy, St. Louis
Newman, Robert L., Kansas City
Newmark, Leonard N., St. Louis
Newport, Gerald, St. Louis
Newton, Gordon, St. Louis
Newton, William T., St. Louis
Nickel, James F., St. Louis
Nickels, Mathew L., Louisiana
(Member St. Louis Medical Society)
Nickson, Charles E., Jr., Independence
Nicolai, Charles H., St. Louis
Nicolay, Kenneth S., Kansas City
Niedermeyer, Edward L., Tarkio
Niedermeyer, George J., St. Louis
Niedorf, Saul, St. Louis
Niesen, Frank J., St. Louis
Nieuwenhuizen, Maarten, Columbia
Nigh, Charles A., St. Louis
Nigro, E. Robert, Kansas City
Nigro, Joseph A., Kansas City
Nishi, Toshio, St. Louis
Nixon, Edward E., Gallatin
Noah, Joseph W., St. Louis
Noback, Richardson K., Kansas City
Nolan, Charles J., St. Louis
Noller, Henry W., Overland
Nolph, Georgia B., Columbia
Noltensmeyer, Milton N., Kansas City
Nomura, Roy M. Y., St. Louis
Norland, Charles C., St. Louis
Nouhan, Joseph G., Jr., St. Louis
Nouri, Hassan, St. Louis
Novak, Edward J., Kansas City
Nuetzel, John A., St. Louis
Nunez, Maria M., St. Louis
Nunn Pat M., Greenwich, Conn.
(Member Jackson County Medical Society)
Nunnelly, Gordon M., Cape Girardeau
Nussbaum, Paul B., Cape Girardeau
Nussbaum, Robert A., St. Louis
Nye, Robert S., St. Louis

O

Oakley, Margaret M., St. Louis
Obando, Francisco J., Cincinnati, Ohio
(Member St. Louis Medical Society)
O'Bannon, Lon W., Jr., Florissant
Obermeyer, Charles G., St. Louis
O'Brien, Edward C., St. Louis
O'Brien, Harry F., Mexico
O'Brien, James A., Joplin
O'Brien, Liam, St. Joseph
O'Brien, Robert M., St. Louis
O'Connor, Robert J., Florissant
O'Connor, William B., St. Joseph
O'Donnell, Joseph V., St. Louis
O'Dowd, James A., St. Louis
Oehler, William F., Cape Girardeau
Oetter, Donald L., St. Louis
O'Farrell, Thomas P., Kansas City
Ogilvie, John H., Gravois Mills
Oglesby, Richard B., St. Louis
Ogura, Joseph H., Ladue
O'Hearne, John J., Kansas City
Ohmoto, Masao, St. Louis
O'Keefe, Joseph D., St. Louis
O'Kell, Richard T., Kansas City
Okun, Edward, St. Louis
O'Leary, James L., St. Louis
Olive, George C., Neosho
Oliver, George A., Farmington
Olmsted, William H., St. Louis
Olney, John W., St. Louis
Olson, Elbert R., Springfield
Olson, Robert E., St. Louis
O'Malley, James F., Kansas City
O'Neal, Lawrence W., St. Louis
O'Neal, Patricia, St. Louis
O'Neil, James H., Kansas City
Onken, Henry D., St. Louis
Oppenheimer, Henry E., Clayton
O'Reilly, D. Elliott, St. Louis
Orenstein, Joseph M., St. Louis
Orgel, M. Norman, St. Louis
Orsay, Paul K., St. Louis
Orth, Oliver G., Columbia
Ortiguero, Leopoldo M., St. Louis
Ortmeyer, Leroy F., St. Louis
Osborn, Retus W., III, Farmington
Osborne, Jere O., Kansas City
Osbourn, Richard A., Fulton
Ossman, Julian A., Jefferson City
Ost, Mark D., Kansas City
Ostapowicz, Frank, St. Louis
O'Sullivan, Daniel F., St. Louis
O'Sullivan, George A., St. Louis
Ott, Harold J., II, St. Louis
Ott, Harold J., Maplewood
Ottensmeyer, Charles D., St. Louis
Otto, Thomas G., Cape Girardeau
Overend, Donald S., Springfield
Overesch, Harry B., Kansas City
Overholser, Milton D., Columbia
Owen, Robert F., St. Louis
Owens, Graham J., Kansas City
Owens, James L., Kansas City
Owens, John H., Sedalia
Owens, Richard L., Kansas City
Owens, Robert H., Kansas City
Ozar, Milton B., Kansas City
Ozenberger, Larry A., Plattsburg
Ozmat, Orhan, St. Louis

P

Packman, Robert C., St. Louis
Paddock, Charles S., Joplin
Padfield, Earl G., Jr., Kansas City
Page, Jesse W., Sikeston
Paine, Robert, St. Louis
Painter, Andrew E., Portageville
Painter, Lattie B., Jr., Portageville
Pakula, Sidney, Kansas City
Palazzo, Frank A., St. Louis
Palcheff, Chris L., Springfield
Palenske, Robert L., Hornersville
Palermo, Vincent G., Chesterfield
Paletta, Francis X., St. Louis
Pallett, Harold A., Kansas City
Papp, Sandor D., Joplin
Pappalardo, Carlos, St. Louis
Parato, John M., St. Louis
Parelman, Allen G., Kansas City
Paris, William H., Normandy
Park, George M., St. Louis
Park, William I., Jr., Springfield
Parker, Arthur C., Jr., Poplar Bluff
Parker, Brent M., St. Louis
Parker, Hubert M., Kansas City
Parker, Robert H., Kansas City
Parker, Thomas W., University City

Parker, William, St. Louis
Parks, Stephen, Sikeston
Parlato, George S., Springfield
Parrish, Henry M., Columbia
Parsons, Bernie, Albany
Parsons, D. LeRoy, Cape Girardeau
Parsons, Eugene O., Stilwell, Kan.
(Member Jackson County Medical Society)
Parsons, Richard P., St. Louis
Pascoe, James J., Nevada
Passanante, Bartholomew M., St. Louis
Patrick, Roman L., Jr., St. Louis
Patterson, Donald R., Joplin
Patterson, Grover S., Carthage
Pavlu, Robert R., Waverly
Pawol, S. E., St. Louis
Payne, David E., Columbia
Payne, John W., Columbia
Payne, Meredith J., St. Louis
Payne, Vaughn C., St. Louis
Payne, William B., Kansas City
Peake, Glenn T., St. Louis
Pearlman, Alan L., St. Louis
Pearman, Carl C., Columbia
Pearse, Roy W., Jr., Nevada
Pearson, Paul E., Kansas City
Peck, Chester R., Jr., Kennett
Peden, Burnet W., Clayton
Peden, James C., Jr., St. Louis
Peden, Joseph C., St. Louis
Peden, Joseph C., Jr., St. Louis
Peebles, J. B., Jr., Kirkwood
Peete, Don C., Kansas City
Pelz, Mort D., Miami, Fla.
(Member St. Louis Medical Society)
Pemberton, Charles W., Arlington, Va.
(Member Grand River Medical Society)
Pena-Ramos, Abelardo, Hannibal
Pence, F. Wendell, Carthage
Penner, Stanley, Kansas City
Penninger, William H., Springfield
Pennington, Francis E., St. Louis
Pennoyer, James, Webster Groves
Pentecost, Richard L., Kansas City
Perez, Blanca M., St. Louis
Perez, Carlos A., St. Louis
Perez, Raul A., St. Louis
Perez-Mesa, Carlos, Columbia
Perez-Tamayo, Ruheri, Columbia
Perico, Carlos J., Kansas City
Perkins, David E., St. Louis
Perkoff, Gerald T., St. Louis
Perll, Maurice F., Kansas City
Perll, Rita D., Kansas City
Perna, Vincent P., St. Louis
Pernoud, Flavius G., Jr., St. Louis
Pernoud, Michael F., St. Louis
Perry, H. Mitchell, Town & Country
Perry, Lawrence L., Jr., Kansas City
Perry, Ralph, Kansas City
Perry, William D., St. Louis
Petersen, Harold E., St. Joseph
Peterson, Bonita J., Kansas City
Peterson, Carl M., Kansas City
Peterson, Donald B., Fulton
Peterson, Frederick D., St. Louis
Peterson, George L., Kansas City
Peterson, Milton C., Sun City, Ariz.
(Member Jackson County Medical Society)
Peterson, Stanley S., Springfield
Peterson, Walter R., Kansas City
Petry, Ezra L., Kansas City
Petty, Jerry M., St. Louis
Pfefer, Leland U., Columbia
Pfeffer, Robert I., St. Joseph
Pfeifer, Oliver C., St. Louis
Pfuetze, Edwin L., Kansas City
Phillips, Hanford, St. Louis
Phillips, John J., St. Louis
Phillips, William J., St. Louis
Philpott, Gordon W., St. Louis
Piccione, Leonard N., St. Louis
Pickard, Clarence M., Columbia
Pickard, Nicholas S., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Pickens, E. Allen, St. Louis
Pickens, Edgar E., San Diego, Calif.
(Member Jackson County Medical Society)
Pierce, John A., St. Louis
Pierron, John B., Kansas City
Pifer, Lawrence H., St. Joseph
Pileggi, Felix A., N. Kansas City
Pilla, Lawrence A., St. Louis
Pingelton, William B., Columbia
Pinsker, Oscar T., Kansas City
Piper, August T., St. Louis
Piper, Donald K., Kansas City
Pipes, Keith E., St. Louis
Pipkin, Garrett, Kansas City
Pitsinger, Nolan B., St. Louis
Pitts, Ferris N., Jr., St. Louis
Platt, William R., Clayton
Platz, John H., Carrollton
Plax, Steven, St. Louis
Plesons, John D., St. Louis
Plowman, Edward M., Hannibal
Plumpe, W. Tupper, St. Louis
Plunkett, Littleton J., Poplar Bluff
Podos, Steven M., Creve Coeur
Podrecca, Guido I., Springfield
Poggemeier, William H., Jr., St. Charles
Politte, Lenard L., Columbia
Polk, George M., Sun City, Ariz.
(Member Jackson County Medical Society)
Polk, John W., Springfield
Pollack, Maxwell A., St. Louis
Pollock, Leo H., Kansas City
Poor, Carl W., Neosho
Pope, Charles H., Jr., Independence
Popp, Carl G., Sikeston
Porporis, Arthur A., St. Louis
Porter, Jim C., Lebanon
Porter, Louis, Kansas City
Porter, Russell C., Seal Beach Calif.
(Member Clay County Medical Society)
Portuondo, Bonaventura C., St. Louis
Post, John P., Washington
Post, John R., St. Louis
Post, Stephen L., St. Louis
Post, Winfred L., Joplin
Potashnick, Robert, St. Louis
Potchen, E. James, St. Louis
Potter, Caryl A., Jr., St. Joseph
Potter, Lee G., Kansas City
Potter, Reese H., St. Louis
Potts, Donald A., Independence
Powell, Charles B., Florissant
Powell, Earl A., St. Louis
Powell, Edwin M., Springfield
Powell, Nelson E., Kansas City
Powell, Robert G., Joplin
Powers, John M., Independence
Powers, Pierce W., St. Louis
Powers, William E., St. Louis
Pranger, Sylvester H., St. Louis
Prater, Bill G., Springfield
Pratt, Lindsay L., St. Louis
Prensky, Arthur L., St. Louis
Presnell, Cleitus A., St. Louis
Press, Maurice J., St. Louis
Preston, Albert, Jr., Kansas City
Price, Charles H., Miami, Okla.
(Member Ozarks Medical Society)
Price, Kenneth C., St. Louis
Printz, Joseph H., Kansas City
Printz, Otto J., Kansas City
Probst, Raymond E., St. Louis
Probstein, Jacob G., St. Louis
Proctor, Donald C., Sedalia
Prokop, Joseph R., St. Joseph
Prophete, B., St. Louis
Proskey, Vincent J., St. Louis
Pruett, Burchard S., St. Louis
Pruett, Hubert S., St. Louis
Pruett, Paul L., Springfield
Pu, Pin H., Kennett
Pucci, Gregory L., Kansas City
Pugh, Reginald P., Columbia
Pugh, Richard G., Independence
Puls, Jerry L., Kansas City
Purcell, Harry K., St. Louis
Purcell, Paul L., Smithville
Pyne, Herbert S., St. Louis

Q

Quer, Erich A., Kansas City
Quick, Richard T., St. Louis
Quinn, Paul S., Springfield
Quistgard, Paul C., Hollister

R

Rabin, Erwin R., St. Louis
Racadio, Severo M., Kirkwood
Rachlin, Maxwell, St. Louis
Rader, Ada B., Kansas City
Rader, Edward S., St. Louis
Rader, George B., St. Louis
Radke, John D., St. Louis
Ragland, John E., Ballwin
Ragsdale, Edward, Scott Air Force Base, Ill.
(Member St. Louis Medical Society)
Ragsdale, George M., Paris
Raich, Robert A., Kansas City
Rainey, Robert, St. Louis
Rainwater, Elmer H., Springfield
Rall, Kenneth L., Columbia
Ramey, Ehret O., Kansas City
Ramos, John F., Jr., Kansas City
Ramsey, Robert H., Ferguson
Randolph, Bernard C., St. Louis
Rannie, Paul R., Independence
Rao, Carlo, St. Louis
Raper, Charles A., Poplar Bluff
Rapp, Earl L., Hannibal
Rapp, Harold B., Cape Girardeau
Rappold, H. O., St. Ann
Ratzlaff, Neal S., Cincinnati, Ohio
(Member Jackson County Medical Society)
Rawlins, Fred E., Cape Girardeau
Raybuck, Harry E., St. Louis
Raynor, Richard, Marshall
Recano, Ricardo Q., St. Louis
Rector, Joe L., Jr., Kansas City
Reddin, Patrick C., Columbia
Redington, James C., Jr., Clayton
Redmond, William, St. Joseph
Reed, G. H., Osceola
Reed, Jonathan R., St. Louis
Reeder, Charles C., Smithville
Reese, A. Victor, St. Louis
Reh, Edward P., St. Louis
Rehm, Ralph, Bloomfield
Reich, Harry A., St. Louis
Reichert, M. Cecelia, St. Louis
Reiches, Aaron J., St. Louis
Reid, James A., Marshall
Reider, Richard A., Warson Woods
Reilly, Pierce J., St. Louis
Reimer, Donald R., Cape Girardeau
Reineck, John A., St. Louis
Reinhard, Edward H., St. Louis
Reinhardt, George R., Kansas City
Reis, Carl J., St. Louis
Reister, Dorothy D., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Reister, Philip D., Kansas City
Reitman, Stanley, St. Louis
Rejent, Anthony J., St. Louis
Rendleman, David D., St. Louis
Rendleman, George F., St. Louis
Rendleman, George, Jr., St. Louis
Rennard, Marvin, St. Louis
Repp, Theodore J., St. Louis
Reuter, Louis A., St. Louis
Revare, Paul, Kansas City
Reyes, Jose T., St. Louis
Reyes, Luis A., St. Louis
Reyes, Rosendo A., St. Louis
Reynolds, Clarence C., Kansas City
Reynolds, Fred, St. Louis
Reynolds, Garland A., Cape Girardeau
Reynolds, James R., Neosho
Reynolds, M. Wayne, Lee's Summit
Rhoades, Arthur B., Lenexa, Kan.
(Member Jackson County Medical Society)
Rhodes, Euhlan L., Warsaw
Rice, Carl E., Hillsboro
Rice, Earl R., Fort Lauderdale, Fla.
(Member St. Louis Medical Society)
Richany, Shafik F., Kansas City
Richards, Frank O., St. Louis
Richardson, George A., Union
Richardson, Marion W., Kansas City
Richardson, Thomas F., Clayton
Richardson, William D., Ghana, W. Africa
(Member Clay County Medical Society)
Richardson, William R., Union
Richman, Elmer, Chesterfield
Richmond, Michael R., Florissant
Richter, William B., Stockton
Ricketts, Harry M., St. Louis
Riddell, Richard V., St. Joseph
Ridenhour, C. E. Gene, Columbia
Ridgeway, William G., St. Louis
Ridings, Harold D., Cape Girardeau
Ridzon, Thomas J., St. Charles
Riekhof, Paul L., Kansas City
Ries, Douglas A., St. Louis
Riffel, Gordon W., Bourbon
Rifkin, Shale M., St. Louis
Riggio, Salvatore N., St. Louis
Rigney, Levi M., Springfield
Rikli, Arthur E., Columbia
Riley, Charles T., Richmond
Riley, John J., St. Louis
Riley, Joseph P., Jr., Parthenon, Ark.
(Member Jackson County Medical Society)
Riller, Lowell E., Kansas City
Rinck, Edward C., Nevada
Rinck, William E., Kansas City
Ring, Edward M., St. Louis
Rink, Richard A., Columbia
Rinker, Carl T., Jr., Columbia
Rippey, John H., Kansas City
Ritchie, Frances R., St. Louis
Ritter, C. John, Cape Girardeau
Ritter, Hubert A., St. Louis
Ritter, Paul J., St. Louis
Ritter, Raymond A., Cape Girardeau
Ritterbusch, James K., Fulton

Rizzo, Adolfo E., St. Louis
Roach, Edward A., St. Charles
Roark, Glenn E., Columbia
Robben, G. Garry, Chesterfield
Roberts, Grosvenor G., Kansas City
Roberts, Harold K., Clayton
Roberts, Harold M., Kansas City
Roberts, John P., Kirkwood
Roberts, John R., St. Louis
Roberts, L. Marvin, Kansas City
Roberts, Paul A., Sweet Springs
Roberts, Phyllis Grant, St. Joseph
Robertson, Frank G., St. Louis
Robertson, William D., Poplar Bluff
Robertson, William D., Kansas City
Robichaux, Eugene B., Excelsior Springs
Robinett, Wade V., Kansas City
Robins, Eli, St. Louis
Robinson, Arthur W., Kansas City
Robinson, Edith C., St. Louis
Robinson, E. Kip, Kansas City
Robinson, Gary Lewis, Springfield
Robinson, George G., Humansville
Robinson, G. Wilse, Jr., Kansas City
Robinson, John A., Edgerton
Robinson, Van M., Kansas City
Robinson, William J., Kansas City
Robison, James T., Jr., Kansas City
Roblee, Melvin A., St. Louis
Roche, Maurice B., St. Louis
Rockoff, S. David, St. Louis
Rodeman, John M., Sedalia
Rodes, Ned D., Mexico
Rodgers, Elrie P., Columbia
Rodgers, George H., Overland Park, Kan. (Member Jackson County Medical Society)
Rodgers, Samuel U., Kansas City
Rodriquez, Rolando A., Kansas City
Rodriguez, Ubaldo R., St. Louis
Roehrs, Marvin E., Marshall
Rogers, Cyril H., St. Louis
Rogers, John A., St. Louis
Rogers, John T., St. Joseph
Rogers, Robert L., Kansas City
Rohlfing, Edwin H., St. Louis
Rohlfing, Walter H., St. Louis
Roller, Merrill J., Hannibal
Rollins, Harry D., Winona
Rolufs, Lloyd S., Kirkwood
Romero, Richard N., Crystal City
Ronald, Douglas C., Butler
Roos, Albert, St. Louis
Roper, Charles L., St. Louis
Roper, Stanley D., Ozark
Rose, Charles W., Kansas City
Rose, Dalton K., St. Louis
Rosecan, Marvin, St. Louis
Rosen, Max, Springfield
Rosenbaum, Harry D., St. Louis
Rosenbaum, Herbert E., St. Louis
Rosenbaum, Louis J., Phoenix, Ariz. (Member St. Louis County Medical Society)
Rosenfeld, Henry, St. Louis
Rosenholtz, Mitchell J., Columbia
Rosenthal, Irwin I., St. Joseph
Rosenthal, Ronald E., St. Louis
Ross, Gilbert, Jr., Columbia
Rost, William B., St. Joseph
Roter, Alexander M., St. Charles
Roth, John J., St. Louis
Rother, Paul H., St. Charles
Rothman, David, St. Louis
Rothweiler, Robert J., St. Louis
Roufa, Joseph F., St. Louis
Roulhac, George E., St. Louis
Rouse, Ernest T., St. Louis
Rowlette, Avery P., Ft. Myers, Fla. (Member Chariton-Macon-Monroe-Randolph County Medical Society)
Roy, Joseph A., Jennings
Royce, James J., Sarcoxie
Royce, Robert K., St. Louis
Royse, Roy P., Sullivan
Royston, Grandison D., Hope, Ark. (Member St. Louis Medical Society)
Rozen, Jay I., Kansas City
Rubenstein, Melvin, St. Louis
Rubin, Herbert M., Kansas City
Rubin, Robert, St. Louis
Rubin, Sidney, Kansas City
Rubnitz, Leon H., Kansas City
Rudi, Herbert J., St. Louis
Rufe, John R., Kansas City
Ruff, T. Eugene, Poplar Bluff
Ruhling, Rudy, St. Louis
Rusan, Thomas E., St. Louis
Russell, Barbara E., Rolla
Russell, Earl D., Springfield
Russell, Garth, Columbia
Russell, Herman E., Berkley
Russell, James L., Kansas City
Russell, Joseph P., Jefferson City
Russell, Robert K., Raytown
Rutledge, John F., Festus
Rutledge, William J., Campbell
Rutman, Joel, St. Louis
Ryan, John B., Washington
Ryan, John H., St. Joseph
Ryan, John J., Clayton
Ryan, Robert E., St. Louis
Ryan, Thomas J., Jefferson City

S

St. John, Thomas C., St. Louis
Sabates, Felix N., Kansas City
Sachar, Leo A., St. Louis
Saferstein, Lester, Kansas City
Sala, Jose M., Springfield
Saladino, Anthony, Shawnee Mission, Kan. (Member Jackson County Medical Society)
Salanga, P. B., St. Louis
Sale, Llewellyn, Jr., St. Louis
Salmon, Mickey L., St. Louis
Samad, Isa A., St. Louis
Sammons, Harry C., St. Louis
Samuelson, Edward A., Kansas City
Sanders, Donald C., Kansas City
Sanders, George E., Excelsior Springs
Sanders, Harmon U., Jr., Lawrence, Kan. (Member Jackson County Medical Society)
Sanders, Jack S., Jefferson City
Sanders, Robert D., St. Louis
Sanders, Theodore E., St. Louis
Sanders, William F., Kansas City
Sandidge, Ernie L., New Madrid
Sandow, Theodore, Jr., Kansas City
Sanford, Edward F., St. Louis
Santanello, William M., St. Louis
Santiago, Miguel, St. Louis
Santillano, Antonio B., Ballwin
Santoro, Carlos G., Kansas City
Sargent, Alden P., Sikeston
Sargent, John P., Sikeston
Sasano, Joseph R., Jr., Kansas City
Sasser, William F., St. Louis
Sato, George, St. Louis
Sauer, Donald C., St. Louis
Sauer, Gordon C., Kansas City
Sauer, W. Nicholas, St. Louis
Saunders, Everett L., Independence
Sawyer, Floyd E., Kansas City
Sawyer, James, St. Louis
Scales, Margaret B., Kansas City
Scanlon, Robert C., Springfield
Schaan, Robert C., St. Louis
Schaef, Mary L., St. Louis
Schaefer, George J., St. Louis
Schaefer, Glennon S., Jr., St. Louis
Schaeffer, Edward M., Springfield
Schaerer, Jacques P., St. Louis
Schaerrer, William C., Kansas City
Schaper, Ernest H., St. Louis
Schattyn, Martyn, St. Louis
Schechter, Samuel E., St. Louis
Scheele, Paul M., St. Louis
Scheer, George E., St. Louis
Scheff, Harold, St. Louis
Schengber, John S., St. Louis
Schertz, Truman B., N. Kansas City
Scheuber, Charles, Columbia
Schewe, Elmer J., Jr., Columbia
Schierman, William D., Clayton
Schiffmacher, Jack E., Kansas City
Schillie, Gene A., Kansas City
Schlansky, Seymour M., St. Louis
Schlenker, Lawrence, St. Louis
Schlozman, Daniel L., Kansas City
Schluer, Elmer P., St. Louis
Schmidt, C. Robert, Kansas City
Schmidt, Charles A., Gerald
Schmidt, Dennis A., St. Louis
Schmidt, Edwin H., St. Louis
Schmidt, Edmund M., St. Louis
Schmidt, Herbert J., Joplin
Schmidt, J. H., Jefferson City
Schmiemeier, Roy H., St. Louis
Schneider, Sam, St. Louis
Schneider, Thomas A., St. Charles
Schnellmann, Donald C., St. Ann
Schoeberl, Cletus B., Joplin
Schoeck, Albert F., St. Louis
Schoedinger, George R., III, St. Louis
Schoentag, John S., St. Louis
Schoolman, Arnold, Kansas City
Schopp, Alvin C., St. Louis
Schottman, Gerhard W., Jr., Kansas City
Schranck, Charles R., St. Louis
Schroeder, Henry A., W. Brattleboro Vt. (Member St. Louis Medical Society)
Schroff, Carle H., Springfield
Schuessler, Wolfgang P., St. Louis
Schuetz, Alfred, St. Charles
Schulte, Gregory A., Joplin
Schultz, E. Robert, St. Louis
Schultz, Irwin, St. Louis
Schultz, Loraine E., Branson
Schultz, Robert V., Liberty
Schultz, Samuel, St. Louis
Schutz, Carl B., San Marcos, Calif. (Member Jackson County Medical Society)
Schutz, Richard B., Kansas City
Schwartz, Eugene J., Springfield
Schwartz, Frederick O., St. Louis
Schwartz, Henry G., St. Louis
Schwartz, Melvin M., St. Louis
Schwartzman, Bernard, St. Louis
Schwarz, Luis, Clayton
Schweiss, John F., St. Louis
Schweitzer, Fred C., Jr., Springfield
Sciortino, Gaspare, St. Louis
Sciortino, John S., St. Louis
Scopelite, Joseph A., St. Louis
Scorse, Sidney W., Joplin
Scott, E. David, Jefferson City
Scott, Elwin P., St. Louis
Scott, Horace W., St. Louis
Scott, Wendell G., St. Louis
Seabaugh, Loy R., Cape Girardeau
Seabaugh, Oda L., Cape Girardeau
Seabaugh, Ottis D., Webster Groves
Seabaugh, William O. L., Cape Girardeau
Seddon, John W., St. Louis
See, William B., Columbia
Seeley, James J., St. Louis
Seely, Clark W., Kansas City
Seevers, Ruth, Osceola
Seib, George A., St. Louis
Sells, Kenneth J., Kansas City
Senhauser, Donald A., Columbia
Senn, Emmett J., Herculaneum
Senne, Herbert C., St. Joseph
Sennott, John S., Jefferson City
Senor, Samuel E., St. Joseph
Senturia, Ben H., St. Louis
Senturia, Hyman R., St. Louis
Sertl, John D., St. Louis
Sevastianos, Aristides E., St. Louis
Sevin, Omar R., Rockhall, Md. (Member St. Louis Medical Society)
Sexton, Daniel L., St. Louis
Sexton, Elmer E., St. Louis
Shackelford, Horace H., St. Louis
Shackter, Bruce I., Springfield
Shah, Anwar, St. Louis
Shahan, Philip T., St. Louis
Shalet, Malcolm F., Kansas City
Shanahan, Mary Patricia, Joplin
Shanahan, Phil J., St. Louis
Shane, Ramon A., Springfield
Shaner, John F., St. Louis
Shank, Robert E., St. Louis
Shapiro, Herbert N., St. Louis
Shapiro, Lazare M., Kansas City
Shapleigh, John B., St. Louis
Sharp, Austin R., St. Louis
Shatz, Burton A., St. Louis
Shaw, Edward J., St. Louis
Shaw, William J., Fayette
Shaw, William J., Jr., Fayette
Shea, James G., Gerald
Sheahan, Edwin L., Atlanta, Ga. (Member St. Louis Medical Society)
Sheahon, John A., Kansas City
Shechter, Nathan, Kansas City
Sheets, Martin E., Chesterfield
Sheffield, William, Kirkwood
Shelden, Russell D., Kansas City
Shell, William C., Sikeston
Shelton, Earl W., St. Louis
Shelton, Edward O., Eldon
Shen, Jerome T. Y., St. Louis
Sherard, Julius C., St. Louis
Sheridan, Edmund R., St. Louis
Sherwin, Charles S., St. Louis
Shevlin, Charles F., St. Joseph
Shieber, William, St. Louis
Shields, J. B., St. Louis
Shifrin, Alexander, Kansas City
Shireman, Kenneth L., Kansas City
Shirey, Arnold G., Hayti
Shively, John A., Columbia
Shobe, Frank O., St. Louis
Shockley, Clarence J., Kansas City
Shofstall, Charles K., Kansas City
Shopfner, Charles E., Kansas City
Shoss, Milton, Cape Girardeau
Shuey, Herbert H., Kansas City
Shull, George D., Jefferson City
Shuman, Joseph S., St. Louis
Shumate, L. St. Clair, Reeds Spring
Shuter, Eli R., St. Louis

Shyken, Herman, St. Louis
Shypper, Moses J., Van Nuys, Calif.
(Member Jackson County Medical Society)
Siceluff, Joseph G., Springfield
Siegel, Carl D., Kansas City
Siemers, George E., St. Louis
Siesener, Herbert H., St. Louis
Sievers, Edward F., Hollywood Beach, Fla.
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Sigmund, Charles A., St. Ann
Signorelli, Andrew J., St. Louis
Silberman, Henry K., Columbia
Silsby, Don J., Springfield
Silsby, Harry D., Springfield
Silver, Bernd, St. Louis
Silver, Herbert, St. Louis
Silverberg, Charles, St. Louis
Silvermintz, Saul D., Ladue
Simmons, Donald D., Kansas City
Simmons, Earl M., Jr., Columbia
Simmons, John L., St. Louis
Simms, Otho M., St. Charles
Simon, David L., St. Louis
Simon, Jerome I., St. Louis
Simon, Nathan M., Clayton
Simon, Sanford, Kansas City
Simpson, Albert P., Springfield
Simpson, Emerson L., Springfield
Simril, Wayne A., St. Louis
Sims, William A., Jr., St. Louis
Sincox, Charles H., Platte City
Singleton, John M., III, Kansas City
Sisk, James C., St. Louis
Sisson, Richard G., St. Louis
Skeffington, Mary Jane, St. Louis
Skilling, David M., Jr., St. Louis
Skillman, Robert K., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Skimming, W. Lee, St. Louis
Skinner, John S., St. Louis
Skinner, John T., Kansas City
Sklenar, Donald E., St. Joseph
Slankard, J. Edward, Kansas City
Slaughter, Carl R., N. Kansas City
Slaughter, Shelby C., Fredericktown
Slentz, Edwin L., Kansas City
Slentz, William A., Kansas City
Slickman, Robert A., Kansas City
Sly, William S., St. Louis
Smiley, William, St. Louis
Smit, Herbert M., St. Louis
Smith, Arthur B., Kansas City
Smith, Benjamin F., Jr., St. Louis
Smith, C. Franklin, Willow Springs
Smith, C. Souter, Springfield
Smith, Carl C., Moberly
Smith, Dermott, St. Louis
Smith, Garland F., St. Louis
Smith, George E., St. Louis
Smith, Grafton A., Columbia
Smith, Herbert P., St. Louis
Smith, Hubert E., Kansas City
Smith, Hugh R., St. Louis
Smith, Ira T., Kansas City
Smith, J. Earl, St. Louis
Smith, James M., Kansas City
Smith, James O., Clinton
Smith, Jason N., Jr., Columbia
Smith, Joe R., Columbia
Smith, John R., St. Louis
Smith, Katherine W., Kansas City
Smith, Kathleen, St. Louis
Smith, Kenneth R., Jr., St. Louis
Smith, Morton E., St. Louis
Smith, Norris W., St. Louis
Smith, Othello D., Mission, Kan.
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Smith, Robert S., St. Louis
Smith, Robert W., Marceline
Smith, Roland T., Joplin
Smith, Rollin H., West Plains
Smith, Sidney E., St. Louis
Smith, Ted P., Rolla
Smith, Wallace B., Independence
Smith, William J., Windsor
Smith, William R., Carthage
Smolik, Edmund A., St. Louis
Smoller, Martin B., St. Charles
Smull, Ned W., Kansas City
Snead, William H., Jr., Springfield
Sneid, Philip, Kansas City
Snider, Wilbur R., Independence
Solley, Robert F., St. Louis
Somers, John E., Columbia
Sommer, Conrad S., St. Louis
Sommer, Ross B., St. Louis
Somoza, Jose, Kansas City
Soper, William D., Excelsior Springs
Sopuch, John A., St. Louis
Sorenson, George D., St. Louis
Sosebee, Lee A., Columbia
Soto, Alberto A., Clayton
Soucy, John C., St. Charles
Soule, Samuel D., St. Louis
Spafford, Allen L., Kansas City
Spalding, David L., Springfield
Spalding, Donald G., St. Louis
Spalding, Wilber B., Plattsburg
Spalding, Wilber B., Jr., Kansas City
Sparkman, Thomas C., Cape Girardeau
Spears, Charles A., Branson
Spears, Joe L., Cabool
Spector, Gene W., St. Louis
Speer, David L., Creve Coeur
Spencer, Andrew D., St. Louis
Spencer, Donald M., Kansas City
Speno, Angelo A., St. Louis
Spies, Barbara J., Kansas City
Spinzig, Edgar W., Kirkwood
Spitz, Milton A., Chicago, Ill.
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Spitz, Richard H., St. Louis
Spoeneman, Marlin C., St. Louis
Spoenemann, Walter H., St. Louis
Sportsman, Weldon L., Smithville
Spratt, John S., Jr., Columbia
Spurgeon, Milo J., Columbia
Spurny, Otto M., Kansas City
Stacey, Wallace R., Independence
Stacy, Winton T., St. Joseph
Staehle, Melvin E., St. Louis
Stafford, Walter R., St. Louis
Staggs, William A., Kansas City
Staley, Harry R., Kansas City
Stallard, Donald J., St. Joseph
Stanfield, Ned M., Jr., St. Louis
Stansbrough, Raymond A., Normandy
Staple, Tom W., St. Louis
Starkloff, Gene B., St. Louis
Starkloff, Max, St. Louis
Statland, Harry, Kansas City
Statland, Morris, Kansas City
Staton, R. Hamilton, Carrollton
Stauffacher, C. Gordon, Sedalia
Stauffer, Harry B., Jefferson City
Steele, Jack T., St. Louis
Steele, James C., Jr., Hannibal
Steffen, Lawrence F., Kansas City
Stegman, Elmer G., Raytown
Stein, Arthur H., Jr., St. Louis
Stein, Harry J., St. Louis
Stein, Joseph W., Kansas City
Stein, Leonard P., St. Louis
Steinbeck, Herbert D., Ridgefield, Conn.
(Member Franklin-Gasconade-Warren County Medical Society)
Steinbeck, Herbert F., Wilmington, Ill.
(Member Montgomery County Medical Society)
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Steinberg, Lawrence S., St. Louis
Steiner, Alexander J., St. Louis
Stelle, Charles W., Prairie Village, Kan.
(Member Jackson County Medical Society)
Stelmach, Walter J., Kansas City
Stephens, Jack D., Kansas City
Stephens, LeRoy J., St. Louis
Stephens, William A., St. Louis
Stephenson, Hugh E., Jr., Columbia
Stergen, Nick E., Florissant
Sterkel, Richard L., St. Louis
Sterling, John A., Kirkwood
Stevens, Edward M., St. Joseph
Stevens, Robert W., St. Louis
Stewart, Frances H., St. Louis
Stewart, John W., St. Louis
Stewart, Mark A., St. Louis
Stewart, Robert B., Springfield
Stewart, Robert H., Sedalia
Stewart, R. Wendell, Springfield
Stewart, Wendell K., Cape Girardeau
Stewart, William J., Columbia
Stickle, Arthur W., St. Louis
Stickler, Ralph O., Kirksville
Stindel, Charles E., St. Louis
Stockton, Raymond W., Kansas City
Stockwell, A. Lloyd, Kansas City
Stockwood, Robert C., Sedalia
Stohr, Paul E., St. Louis
Stokes, James M., St. Louis
Stolar, Jacob, St. Louis
Stoneman, William, III, St. Louis
Storey, Gary A., St. Louis
Stotts, Charles S., Fredonia, Kan.
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(Member St. Louis County Medical Society)
Strauss, Arthur E., St. Louis
Strauss, Carl F., Kansas City
Streetor, Roderick D., St. Louis
Strehlman, Benjamin G., Union
Stribling, Thomas L., Independence
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Stricker, Harold C., Jefferson City
Strobach, Robert L., Butler
Strominger, Donald B., St. Louis
Stroud, Malcolm H., St. Louis
Stryker, Garold V., Venice, Fla.
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Stuart, Byron M., Boonville
Stuart, Daniel D., Brunswick
Stuart, Wallace, St. Louis
Stuebner, Roland W., Marco Island, Fla.
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Sturtevant, Harwood N., Springfield
Stutsman, Albert C., St. Louis
Suba, Antonio R., St. Louis
Suddarth, Sterling B., Kansas City
Sudholt, Alfred F., Jr., St. Ann
Sueper, Robert H., St. Louis
Sugarbaker, Everett D., Jefferson City
Sullivan, Clement J., St. Louis
Sullivan, Leo R., St. Louis
Sullivan, Wm. Wallace, Kirkwood
Sulzbach, John F., Columbia
Summers, Caldwell B., Kansas City
Summers, John B., St. Louis
Summers, Joseph S., Jr., Jefferson City
Summers, Thomas F., St. Louis
Sunderman, Raymond C., St. Louis
Sundstrom, Frank D., Springfield
Sunshine, Herbert, St. Louis
Susanka, William D., St. Louis
Susman, Irvin C., St. Louis
Susman, Noah, St. Louis
Sutter, Richard A., St. Louis
Sutton, Richard L., Jr., Kansas City
Swaykus, Bernard T., St. Ann
Sweany, Henry C., Columbia
Sweet, Herbert C., Webster Groves
Sweiger, James H., Plattsburg
Swisher, Robert C., Kansas City
Switzer, Clyde, Overland Park, Kan.
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Swope, Joseph A., Webster Groves
Sword, Richard O., Kansas City
Sydow, Henry A., Fulton
Szabados, Ernest D., Independence
Szymanski, Stanley R., Macon

T

Talbert, Clifford R., Jr., Cape Girardeau
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Tanaka, George M., St. Louis
Tanner, Robert H., Jefferson City
Tapp, Ernest M., Poplar Bluff
Tapper, Stephen M., St. Louis
Tarrasch, Ernest L., Springfield
Tarson, Solomon S., Overland Park, Kan.
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Tarvydas, Francis, Edina
Tashma, Sigmund, St. Louis
Tasker, Charles B., Kansas City
Tassi, Albert A., St. Charles
Tatkow, Robert W., St. Louis
Tatum, John Henry, Poplar Bluff
Taussig, Barrett L., St. Louis
Taute, Herman, St. Louis
Taveras, Juan M., St. Louis
Taylor, D. Dax, Columbia
Taylor, Eugene D., St. Louis
Taylor, Eugene T., St. Louis
Taylor, Helen L., St. Louis
Taylor, Leo T., Neosho
Taylor, Leon A., Jefferson City
Taylor, Van W., Bonne Terre
Taylor, William E., Springfield
Teare, Max E., Kansas City
Teiber, Frederick W., St. Louis
Tellez, Edward R., Fulton
Temporal, Jose A., St. Louis
Tendai, Mark M., Columbia
Ternberg, Jessie L., St. Louis
Terrill, Robert S., Kansas City
Terry, James F., Springfield
Terry, James W., Jr., Cape Girardeau
Tess, Allen F., St. Louis

Tess, Melvin J. H., St. Louis
Tesson, James A., Kansas City
Thale, Thomas, St. Louis
Tharp, Judith L., Platte City
Theel, Otto W., Jr., Kansas City
Thiel, J. Allen, St. Louis
Thiele, Belmont R., St. Louis
Thiele, George H., Kansas City
Thiele, Otto K., St. Charles
Thierauf, Charles G., St. Louis
Thies, Jerome H., Osceola
Thoma, George E., Jr., St. Louis
Thomas, Christopher Y., Kansas City
Thomas, Horace E., Columbia
Thomas, Lewis J., Jr., St. Lous
Thomas, Robert M., Columbia
Thomas, Thomas C., Liberty
Thomasson, David D., Springfield
Thomasson, Robert E., St. Louis
Thompson, Charles L., Kansas City
Thompson, F. Gregg, III, St. Joseph
Thompson, Ian M., Columbia
Thompson, Lawrence D., Columbia, Ill.
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Thompson, M. Bryant, St. Louis
Throgmorton, Howard B., Sikeston
Thurman, Hill C., Parkville
Thurmann, Manfred, St. Louis
Thym, Henry P., Ballwin
Tibbs, William A., Jr., St. Louis
Tice, Wayne K., Independence
Tichenor, Robert W., St. Louis
Tietjen, Frederick O., Jefferson City
Tiffany, D. E., Poplar Bluff
Till, Bennie N., Dexter
Tillman, Mary A. T., St. Louis
Tillman, Walter W., Jr., Springfield
Tindall, Robert N., St. Louis
Tinsley, John C., Jr., Columbia
Tiongson, Porfirio M., St. Louis
Tippett, Jack C., St. Louis
Tjoflat, Oliver E., St. Louis
Tobias, Norman, St. Louis
Todd, Paul C., Marceline
Tombridge, Thomas L., Springfield
Tomlinson, William L., St. Louis
Tompson, Robert V., Moberly
Tonelli, George L., St. Louis
Torin, Bernice A., University City
Torontow, John, Nevada
Totten, Frederick E., Kansas City
Toubes, Daniel B., Kansas City
Tovar, Manuel, St. Joseph
Towers, Orville W., St. Charles
Townsend, Arthur M., III, St. Louis
Treiman, Robert C., St. Louis
Tremain, Ernest E., Maplewood
Tremain, Irl G., St. Louis
Trigg, Joseph F., St. Louis
Trimble, George X., Kansas City
Triplett, Daniel A., Kansas City
Triska, Roland A., St. Louis
Troeh, Melvin R., Independence
Trotter, Francis O., Jr., St. Louis
Trotter, W. Yates, Springfield
Trowbridge, Barnard C., Kansas City
Trowbridge, Ellsworth H., Jr., Kansas City
Trueblood, Alva C., Jr., St. Louis
Trugly, Edith S., St. Louis
Trunko, Leo, St. Louis
Tsang, John L. K., Springfield
Tsifutis, Argyrios, Brentwood
Tucker, Eugene F., St. Louis
Tucker, George L., St. Louis
Tull, Frank, Sikeston
Tuma, Arthur T., Poplar Bluff
Turner, C. M., St. Louis
Turner, Glenn O., Springfield
Turner, James H., Poplar Bluff
Turner, James K., St. Louis
Turner, Kirby L., Potosi
Turner, Ronald M., Independence
Turner, Rush, St. Louis
Turner, Thomas D., Columbia
Turner, William F., Poplar Bluff
Tutera, Dominic F., Kansas City
Tuthill, Herbert, Kansas City
Tuttle, Jay F., Fulton
Twedell, Donald L., St. Louis
Twin, Edward J., Kansas City
Twyman, Richard A., Kansas City
Tygett, Glenn J., Cape Girardeau
Tygett, Joseph N., Cape Girardeau

U

Uhlemeyer, Henry A., St. Louis
Ulett, George A., St. Louis
Ulett, Pearl C., St. Louis
Underwood, Dick H., Kansas City
Underwood, Johnson, Jr., Kansas City
Underwood, Ross H., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Unger, Harold, Kansas City
Ungvari, Joseph C., St. Louis
Upsher, Albert E., Kansas City
Urban, Edgar D., Sikeston
Utley, James H., St. Louis
Utterman, William F., Perryville

V

Vacca, Joseph B., St. Louis
Valach, Frank J., Brentwood
Valenza, Gaetano, St. Louis
Valins, Eugene, Kansas City
Valtierra, Cesar A., St. Louis
Van Biber, James T., Independence
Van Buskirk, Terrance E., Kansas City
Van Buskirk, William C., Kansas City
Vandiver, Virgil D., Chillicothe
Vandover, John T., St. Louis
Van Dyke, Elmer H., Sedalia
VanGoidsenhoven, Guy, St. Louis
Van Matre, R. M., Washington, D. C.
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Van Norman, Robert T., St. Louis
Van Peenen, Hubert J., Columbia
Vart, Gary R., St. Charles
Vatterott, Paul B., St. Louis
Vaughan, J. Russell, St. Louis
Vaughn, Arthur N., St. Louis
Vaughn, James W., Kansas City
Velasco, Ernest, St. Louis
Venable, H. Phillip, St. Louis
Vensel, Lee H., Springfield
Verda, Dominic J., St. Louis
Verde, Julian N., St. Louis
Vermeire, David A., Kansas City
Vermillion, Crofford O., St. Louis
Vescovo, Paul C., Jr., Kansas City
Vester, James E., Bismarck
Vidals, Guillermo, Kansas City
Viers, Wayne A., St. Louis
Villahermosa, Juanito L., Savannah
Vilmer, Charles, Kansas City
Vincent, Jack C., Kansas City
Vinson, Harold A., Joplin
Vinyard, Jack L., Carrollton
Viraghaty, Julius G., Glencoe
Virant, John A., St. Louis
Virden, Herbert, Kansas City
Viril, Leonardo C., Kansas City
Vitale, Anthony J., St. Louis
Vitale, Nicholas S., St. Louis
Vitt, Alvin E., St. Louis
Vitt, Edwin F., St. Louis
Viviano, Joseph G., St. Louis
Vogel, Arthur P., Kansas City
Volk, George E., Hampton, Va.
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Vollmar, Clarence J., Webster Groves
Votaw, Robert E., St. Louis
Voth, Harold W., Kansas City
Vournas, Christopher G., St. Louis

W

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Wacker, Leo L., St. Louis
Waddell, Kenneth E., Springfield
Waddle, Theodore L., Dexter
Wade, Frederick E., Kansas City
Wade, James P., St. Louis
Wadlow, Ernest E., St. Joseph
Waggoner, Charles M., Columbia
Waggoner, Sharon E., St. Joseph
Wagner, Paul J., Kansas City
Wakefield, Franklin H., Leawood, Kan.
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Wakerlin, G. E., Columbia
Wald, Donald M., North Kansas City
Wald, Stanley M., St. Louis
Walker, Ambrose T., Mammoth Springs, Ark.
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Walker, Harvey, Jr., St. Louis
Walker, Hugh B., Clinton
Walker, J. Leslie, St. Louis
Walker, James C., Kansas City
Walker, John W., Kansas City
Walker, Orville C., Jr., Independence
Walker, Paul W., Joplin
Walker, Willard B., Clayton
Walker, William M., Springfield
Wall, Harry C., Kansas City
Wall, Joe A., Houston
Wall, Leonard A., Kansas City
Wallace, Edgar S., Mexico
Wallace, Hilen K., St. Joseph
Wallace, John K., II, Jefferson City
Wallwork, Caleb J., Illmo
Walsh, James W., St. Louis
Walsh, Theodore E., St. Louis
Walsh, Thomas J., St. Louis
Walter, Archie L., Sedalia
Walter, Kenneth E., St. Louis
Walter, William L., St. Louis
Walters, Harold E., St. Louis
Walters, Henry W., St. Louis
Walters, John H., Columbia
Walters, Laura, Columbia
Walters, William H., St. Louis
Walterscheid, John H., Hannibal
Walther, Roy A., Jr., St. Louis
Waltman, Stephen, St. Louis
Walton, Franklin E., St. Louis
Walton, Marion C., Mountain View
Waltrip, Roy T., Jr., Sikeston
Waltz, Charles A., Kansas City
Waltz, James R., Kansas City
Wanamaker, John M., Rock Port
Ward, Joe, Lexington
Ward, Robert L., Poplar Bluff
Warres, Herbert L., Springfield
Washburn, J. Loren, Versailles
Washington, Edward L., Columbia
Washington, Walter, St. Louis
Wasserman, Helman C., St. Louis
Waterfield, Jim R., Springfield
Waterman, Franklin M., Liberty
Waters, E. Burton, Defiance
Waters, Hugh R., St. Louis
Watkins, George L., Jr., Farmington
Watson, Cecil L., Marshall
Watson, Ethel, Independence
Watson, Trevor F., Columbia
Wattenberg, Carl A., St. Louis
Watts, Byron E., Jefferson City
Waxman, David, Kansas City
Waxman, Herbert J., Kansas City
Waxman, Jane Z., Kansas City
Wayland, Thomas A., Camdenton
Wayne, Sherwyn J., St. Louis
Webb, Harry E., Kansas City
Webb, Leslie R., Jr., Springfield
Webb, Marion A., St. Louis
Webb, Paul B., St. Louis
Webb, Paul B., Jr., St. Louis
Webb, Paul K., St. Louis
Webber, Wm. B., St. Louis
Weber, J. R., St. Louis
Weber, Sol, St. Louis
Weber, William K., Bridgeton
Wee, George C., Jefferson Barracks
Weed, Randal W., St. Joseph
Weeks, George R., Cape Girardeau
Weidmaier, Edward J., Kansas City
Weiford, Edward C., Kansas City
Weigensberg, Irving J., St. Louis
Weiler, Thomas J., St. Louis
Weinand, Ernest E., St. Joseph
Weinel, Francis G., St. Louis
Weinhaus, Robert S., St. Louis
Weir, Don C., St. Louis
Weir, Robert K., Kansas City
Weir, Royal A., St. Louis
Weir, R. S., Delray Beach, Fla.
(Member Grand River Medical Society)
Weis, Matthew W., Villa Ridge
Weisbrod, Wilfred B., St. Louis
Weisman, Renate D., St. Ann
Weisman, Sol, St. Louis
Weiss, James M. A., Columbia
Weiss, Stuart, St. Louis
Weldon, Clarence S., St. Louis
Well, Julius W., Palmyra
Weller, Lynn D., Kansas City
Wells, James A., Kansas City
Wells, John H., Kansas City
Welsh, Laurence C., St. Louis
Weltscheff, Christo A., Kansas City
Wempe, G. Raymond, Maryville
Wenneker, Alvin S., St. Louis
Wenner, Herbert A., Kansas City
Wentzel, Louis R., St. Louis
Werner, Dean F., N. Kansas City
Werner, Franklin C., Kansas City
Werner, William A., St. Louis
Wertzberger, John J., Kansas City
Wessler, Stanford, St. Louis
West, Joseph W., St. Louis
Westerfeld, Roy A., St. Charles
Westerman, Henry C., St. Louis
Westerman, Robert N., St. Louis
Westrup, Ellsworth A., Webster Groves
Weyerich, Leon F., St. Louis
Weygandt, Glenn R., Philadelphia, Pa.
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Wheeler, John H., Kansas City
Wheeler, Paul C., Columbia
Wheeler, Robert L., Harrisonville
Whitaker, Topsy H., East Prairie
White, Barry B., Poplar Bluff
White, Charles H., Kansas City
White, George A., Kansas City
White, James S., Kansas City
White, Newton B., Kirkwood
White, R. Ned., Springfield
White, Stoughton F., Kansas City
White, William E., Kansas City
White, William H., Jr., St. Louis
Whiteman, John R., Kansas City
Whitener, Miles C., St. Louis
Whitener, Paul R., St. Ann
Whitlock, Courtney C., Springfield
Whitman, Doyle C., Kansas City
Whitmore, J. Stewart, Kansas City
Whitsell, Ora E., St. Joseph
Whittaker, Charles K., Kansas City
Whitten, Marion F., Carthage
Whittico, James M., St. Louis
Wicks, Edwin O., Kansas City
Wiedershine, Leonard J., St. Louis
Wiegand, Herbert C., St. Louis
Wieman, Harry K., Joplin
Wien, Irving A., Kansas City
Wiese, Harry W., St. Louis
Wiggins, Roland L., Columbia
Wilber, Robert D., Kansas City
Wilbers, Raymond H., Mexico
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Wilcox, Ruth E., Joplin
Wilcoxen, William B., Bowling Green
Wiles, Jack N., West Plains
Wilhelm, Warren F., Kansas City
Wilkinson, Charles B., Kansas City
Wilkinson, Everett A., Kansas City
Will, Leo A., Venice, Fla.
(Member St. Louis Medical Society)
Williams, Carol F., St. Louis
Williams, Frank R., Kansas City
Williams, George P., Kansas City
Williams, Jerome, St. Louis
Williams, John M., Liberty
Williams, John W., Oak Grove
Williams, John W., Springfield
Williams, John W., Jr., Springfield
Williams, Joseph C., Jr., Kansas City
Williams, Ray D., St. Louis
Williams, Robert D., Smithville
Williams, Robert S., Mexico
Williams, Roland D., Kansas City
Williams, Starks J., Kansas City
Williams, Thomas A., Kansas City
Williams, W. A., Jr., Cape Girardeau
Williamson, George L., Kansas City
Williamson, Walter E., St. Louis
Willits, Lyle G., Kansas City
Willman, Charles R., St. Joseph
Willman, Vallee L., St. Louis
Willoughby, James W., Kansas City
Willoughby, Jean B., Kansas City
Willumsen, Henry C., St. Joseph
Wilson, Alice H., Joplin
Wilson, Charles F., Cape Girardeau
Wilson, Clifford C., Kansas City
Wilson, Fred K., Winston
Wilson, George P., Columbia
Wilson, Hester J., Kansas City
Wilson, Hugh M., St. Louis
Wilson, John E., Columbia
Wilson, Keith S., St. Louis
Wilson, Loys C., Kennett
Wilson, Roy E., Springfield
Wilson, Vernon E., Columbia
Wilucki, Melvin R., St. Louis
Wimmer, Warren J., St. Louis
Windmiller, Myrl E., Columbia
Windsor, Charles E., St. Louis
Winegar, Alvon C., Jefferson City
Winer, Bernard A., Kansas City
Winer, Herbert J., Kansas City
Winer, Nathaniel, Kansas City
Winkelman, Esther B., Kansas City
Winn, George W., Boonville
Winokur, George, St. Louis
Winston, Bernard H., Kansas City
Winter, John H., St. Louis
Winter, Tyrus D., St. Louis
Winterer, Roland A., St. Louis
Winterling, Charles A., St. Louis
Winters, Kathleen, St. Louis
Wipfler, Earl J., Jr., St. Charles
Wippo, Edgar W., St. Louis
Wirthlin, Edward H., St. Louis
Wise, George W., Kansas City
Wise, Gordon F., Springfield
Wissmath, Frank S., Clayton
Wissner, Seth, St. Louis
Withers, Orval R., Kansas City
Withrow, John B., Kansas City
Witt, Clyde M., St. Louis
Witt, Frederick W., St. Louis
Wittgen, Edward M., St. Louis
Wittler, Harry A., St. Louis
Wittmer, Samuel C., Springfield
Wolcott, Lester E., Columbia
Wolf, Jack W., Kansas City
Wolfe, Edward, St. Louis
Wolff, Harold D., St. Louis
Wolff, Paul G., Cape Girardeau
Wolff, Ray J., St. Ann
Wolfgram, Edwin D., St. Louis
Wolfram, Philip H., Platte City
Wollschlaeger, Gertraud, Columbia
Wollschlaeger, Paul, Columbia
Womack, Granville J., Chesterfield
Wommack, Fred L., Crane
Wong, George, Jr., Springfield
Wood, Bennett R., St. Louis
Wood, George F., Fulton
Wood, George H., Carthage
Wood, James A., Clayton
Wood, William W., Springfield
Woodbridge, John H., Reno, Nev.
(Member St. Louis Medical Society)
Woodman, Grey M., Kansas City
Woodruff, Calvin W., Columbia
Woodruff, Robert A., Jr., St. Louis
Woods, Harold V., Blue Springs
Woods, Ralph E., Clayton
Woods, S. Dwight, Kansas City
Woods, Walton C., Kansas City
Woodside, Kenneth T., St. Louis
Woodward, William W., Independence
Wool, Gerald, St. Louis
Wooldridge, Bart F., Joplin
Wooldridge, Wilfred E., Springfield
Woolf, Ralph B., St. Louis
Woolsey, Joyce E., St. Louis
Woolsey, Robert M., St. Louis
Word, Parker H., St. Louis
Workman, Charles E., Kansas City
Workman, George M., Hermann
Worley, Charles A., Sweet Springs
Wortmann, Robert F., Kansas City
Wotawa, William J., St. Louis
Wray, Rolla B., Nevada
Wright, Earl J., Kansas City
Wright, Robert P., Kansas City
Wu, William Q., Kansas City
Wulff, George J. L., Jr., St. Louis
Wurr, Dieter, Arnold
Wurster, Jerry B., Kansas City
Wurster, W. Joel, Kansas City
Wyatt, Lois C., Kirkwood
Wyrsch, Leo M., Jr., Springfield

Y

Yaeger, Gerald A., St. Charles
Yancey, Daniel L., Springfield
Yang, Jae H., St. Louis
Yannakakis, John E., St. Louis
Yanow, Mitchell, St. Louis
Yap, Mardonio J. R., St. Louis
Yazdi, A. M., St. Louis
Ylagan, Amando, Jr., St. Louis
Yohe, Ruth M., Kansas City
Yore, Richard W., St. Louis
Yoskit, Harry, Festus
Youll, Donald V., Kansas City
Youmans, Ronald A., Kansas City
Young, Calvin C., Jr., Joplin
Young, James E., Kansas City
Young, Jesse W., Kansas City, Kansas
(Member Jackson County Medical Society)
Young, Paul R., Kansas City
Young, Robert B., Rolla
Young, Robert H., Moberly
Youngblood, James P., Kansas City
Younge, Walter A., St. Louis
Younger, Anita, St. Louis
Younger, Ernest, St. Louis
Yuan, Louis S. K., St. Louis
Yuen, Pun Fai, Sacramento, Calif.
(Member Boone County Medical Society)

Z

Zacharias, David L., Kansas City
Zahn, Robert L., Springfield
Zahony, Ivan, Kansas City
Zahorsky, Theodore S., St. Louis
Zeffren, Joel L., St. Louis
Zekert, Horst, St. Louis
Zellermayer, Jacob, Kansas City
Ziegelmeyer, John S., St. Louis
Ziegler, Anthony, Jr., Vandalia
Zillgitt, George H., St. Louis
Zimmerman, Herbert B., St. Louis
Zimmerman, Joseph A., Kennett
Zingale, Frank G., St. Louis
Zink, Oscar C., St. Louis
Zografakis, George H., St. Louis
Zoller, David D., Kansas City
Zuckner, Jack, St. Louis
Zukowski, Edward T., Chesterfield
Zwart, Claude H., St. Louis
Zwirn, Benjamin H., St. Louis

Roster of Members by County Societies

ADAIR COUNTY
(North Central Counties Medical Society)

ANDREW COUNTY MEDICAL SOCIETY
(Savannah 64485)

Baker, Warren C., Savannah
Kelley, Gilbert B., Savannah
Villahermosa, Juanito L., Savannah

ATCHISON COUNTY
(Northwest Missouri Medical Society)

AUDRAIN COUNTY MEDICAL SOCIETY
(Mexico 65265)

Boyce, John M., 620 E. Monroe St.
Bradley, William W., Centralia 65240
Davis, Leonard L., Jr., 241 Geneva Rd., Knoxville, Tenn. 37919
Dwyer, Thomas L., 119 E. Love St.
Ector, Henry J., 314 S. Trinity St.
Ekern, H. Peter, 1415 S. Morris St.
Gantt, Ernest S., Jr., 105a W. Monroe St.
Garcia, Charles L., Mexico
Godfrey, James J., 502 E. Monroe
Jolly, Benjamin N., 112 N. Clark Ave.
Jolly, William H., 112 N. Clark Ave.
Kallenbach, Glen P., 321 N. Washington St.
Lankford, Harold D., 117 E. Monroe St.
O'Brien, Harry F., Mexico
Rodes, Ned D., Mexico
Wallace, Edgar S., 210 E. Monroe St.
Williams, Robert S., Kemper Bldg.
Ziegler, Anthony, Jr., Vandalia 63382

BARRY COUNTY
(Ozarks Medical Society)

BARTON COUNTY MEDICAL SOCIETY

Arnold, Herbert M., Lamar 64759
Bickel, Vern T., Lamar 64759
Cain, Alvin R., Lamar 64759
Carroll, Thomas W., Lamar 64759
Guldner, Edmond, Lamar 64759

BATES COUNTY
(West Central Missouri Medical Society)

BOLLINGER COUNTY
(Unorganized)

BOONE COUNTY MEDICAL SOCIETY
(Columbia 65201)

Adams, Harold D., 213 W. Broadway
Allen, Joseph E., Professional Bldg.
Allen, Robert W., Rt. 2, St. Charles Rd.
Allen, William C., 508 W. Briarwood Lane
Almond, Carl H., 807 Stadium Rd.
Amlinger, Philipp R., 1118 W. Rollins Rd.
Anderson, Ivan A., 606 Medavista
Anderson, Philip C., 807 Stadium Rd.
Anderson, Thomas R., 822 Yale St.
Arnold, Richard C., P. O. Box 53
Asel, Norman D., 807 Stadium Rd.
Baker, A. Sherwood, 807 Stadium Rd.
Baker, James M., 16 S. 10th St.
Battersby, Richard S., Candle Light Lodge
Bingham, Hal G., 807 Stadium Rd.
Black, Samuel P. W., 300 S. Glenwood St.
Blackwell, Charles W., 201 W. Broadway
Bonner, John T., 807 Stadium Rd.
Brooke, Clement E., 901 Edgewood Ave.
Brukardt, Diane, Student Health Service
Bruner, Claude R., 909 University Ave.
Buesseler, John A., 807 Stadium Rd.
Bumgarner, James E., 1504 E. Broadway
Bumgarner, Roger W., P. O. Box 975
Burns, Thomas W., 310 E. Brandon Rd.
Busby, William E., 113 W. Broadway
Byer, John A., 201 W. Broadway
Bynum, William R., P. O. Box 1266
Cartwright, Robert S., 605 Hulen Dr.
Chalkley, Judson I., Boone County Hosp.
Chapman, Charles L., 313 E. Briarwood
Cheek, Charles W., 113 W. Broadway
Chiasson, E. Chaille, P. O. Box 1077
Cochran, Donald Q., 1502 E. Broadway
Colwill, Jack M., 1105 S. Glenwood Ave.
Cook, Galen B., 3169 Birdrock Rd., Pebble Beach, Calif. 93953
Cooper, Maurice E., 1000 Wayne Rd.
Cope, James C., 1502 E. Broadway
Crosby, Alice S., 2019 Crestridge Dr.
Culley, Thomas S., 807 Stadium Rd.
Darnell, Thomas F. B., Doctors Clinic Bldg.
Davis, David, 6207 Bannockburn Dr., Bethesda, Md. 20014
Denninghoff, James C., 201 W. Broadway
DeWeese, Marion S., 807 Stadium Rd.
Dexheimer, Frank R., 113 W. Broadway
Dexter, James D., 807 Stadium Rd.
Dietrich, Karl D., 909 University Ave.
Donegan, Judith H., University of Missouri Medical Center
Donegan, William L., Ellis Fischel Cancer Hosp.
Eggers, George W. N., Jr., 807 Stadium Rd.
Ferneau, James E., 113 W. Broadway
Froelich, Robert E., 807 Stadium Rd.
Fuchs, George J., Jr., 1504 E. Broadway
Galeota, William R., 807 Stadium Rd.
Garb, Solomon, W. Colfax Ave., Spivak, Colo. 80214
Garfinkel, Lester S., 308 Defor Dr.
Garrett, Glen H., 909 University Ave.
Garrotto, Lewis J., 807 Stadium Rd.
Gaunt, William D., 807 Stadium Rd.
Griffin, William T., 807 Stadium Rd.
Grunberg, Emile, 411 Bourn Ave.
Guthrie, Richard A., U. of Mo. Medical Center
Hall, David G., 807 Stadium Rd.
Hanna, Fikri M., 708 Hilltop Dr.
Hardwicke, Henry M., Ashland 65010
Harris, Hugh S., Jr., 801 Cowan Dr.
Harris, Robert J., 2505 E. Broadway
Hart, William M., 807 Stadium Rd.
Haw, Marvin T., Jr., 1807 Jackson
Hinds, David R., 2246 Concordia Dr.
Hori, Jose M., Ellis Fischel State Cancer Hospital
Hubbell, Ira G., 302 McNab Dr.
Hueser, James N., 610 West Blvd. So.
Ide, Carl H., 600 Laurel Dr.
Jackson, Robert L., 807 Stadium Rd.
Johnson, Richard E., Boone County Hosp.
Jones, John B., Stone Hill, R.F.D. 1
Keown, Kenneth K., 807 Stadium Rd.
Kerr, S. Earl, 1308 Fieldcrest
King, Robert J., 1502 E. Broadway
Kubin, Milford T., Meadow Lark, R.F.D. 4
LaChance, Leopold, Centralia 65240
Ladenson, Roland P., 16 S. 10th St.
Landhuis, L. R., 807 Stadium Rd.
Lee, Yeu-Tsu, Ellis Fischel State Cancer Hospital
Leech, Charles A., 1504 E. Broadway
Leeper, Sidlee W., 1504 E. Broadway
Lewis, Ray B., 1502 E. Broadway
Lindberg, Donald, Route 4
Litton, Lynn O., Route 5
Litwiller, R. W., 1312 W. Broadway
Lodwick, Gwilym S., 208 W. Ridgeley Rd.
Logue, John T., 1504 E. Broadway
Lohmar, Roland E., 113 W. Broadway
Lukens, John N., Jr., U. of Mo. Medical Center
McElroy, Glenn L., 1504 E. Broadway
Marco, Philip J., 6819 Wildlife Rd., Malibu, Calif. 90265
Marienfeld, Carl J., 807 Stadium Rd.
Martin, Richard H., 807 Stadium Rd.
Mayer, William D., 1 Ridgeley Rd.
Metzgar, Marshall T., 807 Stadium Rd.
Miller, Leroy J., 1502 E. Broadway
Minnigerode, Lana, 11 S. William
Minnigerode, Turner L., 4107 Defoe Dr.
Mitchell, Franklin L., 2208 Danforth Ct.
Mitchell, Lynn D., 1502 E. Broadway
Moranville, Benedict A., 1504 E. Broadway
Mosby, Larry D., 107 E. Brandon Rd.
Neal, M. Pinson, 807 Stadium Rd.
Nieuwenhuizen, Maarten, 803 Stadium Rd.
Nolph, Georgia B., 801 Westport Dr.
Orth, Oliver G., 201 W. Broadway
Overholser, Milton D., 807 Stadium Rd.
Parrish, Henry M., 807 Stadium Rd.
Payne, David E., 804 Moon Valley Rd.
Payne, John W., 1504 E. Broadway
Pearman, Carl C., 202 Williamsburg Apts.
Perez-Mesa, Carlos, Ellis Fischel State Cancer Hosp.
Perez-Tamayo, Ruheri, Ellis Fischel State Cancer Hospital
Pfefer, Leland U., 1504 E. Broadway
Pickard, Clarence M., 113 W. Broadway
Pingelton, William B., 113 W. Broadway
Politte, Lenard L., 113 W. Broadway
Pugh, Reginald P., Ellis Fischel Hospital
Rall, Kenneth L., 1121 Danforth Dr.
Reddin, Patrick C., 807 Stadium Rd.
Ridenhour, C. E. Gene, 1408 Pearl
Rikli, Arthur E., 4003 Faurot
Rink, Richard A., 807 Stadium Rd.
Rinker, Carl T. Jr., 912-A Fairview Rd.
Roark, Glenn E., C-6 Medical Center
Rodgers, Elrie P., Box 157
Russell, Garth, 1504 E. Broadway
Rosenholtz, Mitchell J., 807 Stadium Rd.
Ross, Gilbert, Jr., 807 Stadium Rd.
Scheuber, Charles, 1504 E. Broadway
Schewe, Elmer J., Jr., 1232 Sunset Dr.
See, William B., 1504 E. Broadway
Senhauser, Donald A., 807 Stadium Rd.
Shively, John A., 807 Stadium Rd.
Sights, Warren P., Jr., 807 Stadium Rd.
Silberman, Henry K., Dept. of Psychiatry, University of Missouri Medical Center
Simmons, Earl M., Jr., 2216 Ridgefield Dr.
Smith, Grafton A., 917 Crestland Ave.
Smith, Jason N., Jr., 701 West Blvd. S.
Smith, Joe R., 1506 E. Broadway
Somers, John E., 201 West Broadway
Sosebee, Lee A., 1504 E. Broadway
Spratt, John S., Jr., 105 S. Glenwood Ave.
Spurgeon, Milo J., 404 Edgewood Ave.
Stephenson, Hugh E., Jr., 807 Stadium Rd.
Stewart, William J., 909 University Ave.
Stoy, Robert P., 201 W. Broadway
Sulzbach, John F., 807 Stadium Rd.
Taylor, D. Dax, 923 College Park
Tendai, Mark, 807 Stadium Rd.
Thomas, Horace E., 1504 E. Broadway
Thomas, Robert M., 113 W. Broadway
Thompson, Ian M., 807 Stadium Rd.
Tinsley, John C., Jr., 16 S. Tenth St.
Turner, Thomas D., 807 Stadium Rd.
VanPeenen, Hubert J., 807 Stadium Rd.
Waggoner, Charles M., 201 W. Broadway
Wakerlin, G. E., 406 Turner Ave.
Walters, John H., 11 S. Williams St.
Walters, Laura, 11 S. Williams St.
Washington, Edward L., 1504 E. Broadway
Watson, Trevor F., 1504 E. Broadway
Weiss, James M. A., 807 Stadium Rd.
Wheeler, Paul C., Univ. of Mo. Med. Center
Wiggins, Roland L., 408 N. Garth
Wilson, George P., 201 W. Broadway
Wilson, John E., 1504 E. Broadway
Wilson, Vernon E., U. of Mo., Lewis Hall, Room 120
Windmiller, Myrl E., 1504 E. Broadway
Wolcott, Lester E., 2417 Beachview Dr.
Wollschlaeger, Gertraud, 1718 E. Broadway
Wollschlaeger, Paul, 1718 E. Broadway
Woodruff, Calvin W., 807 Stadium Rd.
Yuen, Pun Fai, 1355 Florin Rd., Sacramento, Calif. 95822

BUCHANAN COUNTY MEDICAL SOCIETY
(St. Joseph)

Acuff, R. Philip, 702 Jule St. 64501
Ames, Mary B., 2318 Lovers La. 64505
Ames, William H., 902 Edmond St. 64501
Augustine, Robert W., 902 Edmond St. 64501
Beck, Paul M., Kirkpatrick Bldg. 64501
Beheler, Edward M., 2403 Frederick Ave. 64506
Benson, Scott C., 324 N. 6th St. 64501
Berney, Francis J., Kirkpatrick Bldg. 64501
Boteler, George M., 422 W. 47th St., Kansas City 64112
Bristow, Robert B., Physicians & Surgeons Bldg. 64501
Bryant, Sydney L., 902 Edmond St. 64501
Butler, Elza F., 902 Edmond St. 64501
Callman, George, State Hosp. No. 2 64502
Carpenter, George T., 902 Edmond St. 64501
Challener, William A., III, 902 Edmond 64501
Christ, Martin H., 6106 King Hill Ave. 64504
Cox, John P., 902 Edmond St. 64501
Craig, Owen W. D., Kirkpatrick Bldg. 64501
Craig, Richard O., 3900 Miller Rd. 64505
Day, Maxwell, Rt. #1, Lake MacBride, Solon, Ia. 52333
DuMont, Clement C., 1905 Francis St. 64501
Ferguson, Luther J., 2907 Francis St. 64501
Fischer, Martin J., 902 Edmond, 64501
Fisher, Joseph L., 7th & Jule Sts. 64501
Forgrave, John R., 420 N. 8th St. 64501
Forgrave, Leon P., 420 N. 8th St. 64501
Forman, George W., P.O. Box 830 64502
Fuson, Levi H., Route 3 64506
Grant, Claude S., 1302 Faraon St. 64501

Greenberg, Charles, 10669 Rochester Ave., Los Angeles, Calif. 90024
Grimes, Manning E., Kirkpatrick Bldg. 64501
Gunter, Joe S., 902 Edmond St. 64501
Handler, Eric, Physicians and Surgeons Bldg. 64501
Harner, Casper G., 902 Edmond St. 64501
Hayes, Paul W., 902 Edmond St. 64501
Herman, Allen I., Physicians and Surgeons Bldg. 64501
Howden, Thomas L., 2723 Francis 64501
Hughes, Judson M., Towne & Campus II, Fulton 65251
Ide, Lucien W., P. O. Box 830 64502
Jimenez, Jose, 1004 Rush Road 64502
Kieber, Robert W., Kirkpatrick Bldg. 64501
Kline, Carlyn M., 17 Stonecrest St. 64506
Kline, Edmund W., 510 Francis St. 64501
Knepper, Paul A., 902 Edmond St. 64501
Kulowski, Jacob, 2404 Highly St. 64506
Lee, Carleton H., 1402 Faraon St. 64501
Lehman, Philip C., 510 Francis St. 64501
Lopez, Fernando, Southwestern State Hospital, Thomasville, Ga. 31792
McCaffree, Mary K., 510 Francis 64501
McDaniel, John R., 902 Edmond St. 64501
McDonald, Wilbur P., 301 N. 8th St. 64501
Maginn, Richard L., 702 Jule St. 64501
Marston, F. James, Jr., 902 Edmond St. 64501
Martin, John N., Physicians and Surgeons Bldg. 64501
Minton, Robert S., Log Cabin #1, Fortescue 64452
Moen, Berwyn H., 902 Edmond St. 64501
Morse, John P., 902 Edmond St. 64501
Morse, Marvin, 2702 Faraon St. 64501
Mothershead, John L., 2603 Frederick Ave. 64501
Muench, Albert H., Physicians and Surgeons Bldg. 64501
Mullinax, Orr, Robidoux Motor Hotel 64501
Mundy, Homer F., State Hospital No. 2 64502
Ness, Carl K., 902 Edmond St. 64501
O'Brien, Liam, State Hospital No. 2 64502
O'Connor, William B., 510 Francis St. 64501
Petersen, Harold E., 2401 Frederick Ave. 64501
Pfeffer, Robert I., 1915 N. 29th St. 64506
Pifer, Lawrence H., 1302 Faraon St. 64501
Potter, Caryl A., Jr., Pioneer Bldg. 64501
Prokop, Joseph R., 902 Edmond St., 64501
Redmond, William, Corby Bldg. 64501
Riddell, Richard V., 902 Edmond St. 64501
Roberts, Phyllis Grant, 3314 Linda La. 64506
Rogers, John T., 2502 Ashland Ave. 64506
Rosenthal, Irwin I., State Hospital No. 2 64502
Rost, William B., 2221 N.W. Extension Blvd. 64506
Ryan, John H., 301 N. 8th St. 64501
Senne, Herbert C., 223 N. 7th St. 64501
Senor, Samuel E., 722½ Francis 64501
Shevlin, Charles F., 902 Edmond St. 64501
Sklenar, Donald E., 228 Illinois Ave. 64504
Stacy, Winton T., 1215 N. 24th St., 64506
Stallard, Donald J., 902 Edmond St. 64501
Stevens, Edward M., 702 Jule St. 64501
Thompson, F. Gregg, III, 902 Edmond St. 64501
Tovar, Manuel, 13th & Faraon St. 64501
Wadlow, Ernest E., 510 Francis St. 64501
Waggoner, Sharon E., 301 Illinois Ave. 64504
Wallace, Hilen K., 5th and Francis St. 64501
Weed, Randal W., 702 Jule St. 64501
Weinand, Ernest E., 902 Edmond St. 64501
Whitsell, Ora E., 802 N. 23rd St. 64506
Willman, Charles R., 2405 Frederick Ave. 64501
Willumsen, Henry C., 902 Edmond St. 64501

BUTLER-WAYNE-RIPLEY COUNTY MEDICAL SOCIETY
(Poplar Bluff 63901)

Barbour, Marvin R., Kneibert Clinic
Beecher, Sheldon B., 1517 Rosedale Ave.
Biggs, Fred J., Jr., Kneibert Clinic
Brookreson, Alton D., 700 Hendrix Dr.
Brookreson, Alton F., 217 Oak St.
Caldwell, Fred, Kneibert Clinic
Camp, Richard V., Jr., 330 N. Second St.
Canlas, Emilio M., P. O. Box 1009
Cline, Harold H., Piedmont 63957
Dinelli, Frank E., 215 Oak St.
Engelhardt, Robert C., Kneibert Clinic
Gernstetter, Sangwill L., P. O. Box 337
Hansbrough, Eugene T., 623 Pine Blvd.
Harwell, J. Lester, 6810 Pershing, University City 63130
Hecker, Joseph E., Kneibert Clinic
Hoja, W. Alexander, Kneibert Clinic
Kneibert, Fred L., Kneibert Clinic
Ladyman, George H., 623 Pine St.
Leroux, Gene, Doniphan 63935
Loughead, John R., 330 N. 2nd St.
McLain, Bobby M., Route 2
McLane, Jerry F., 330 N. 2nd St.
McPheeters, James W., Sr., 330 N. 2nd St.
Macauley, Bernard J., 215 Oak St.
Markel, Arthur D., Kneibert Clinic
May, Albert L., Jr., 330 N. 2nd St.
Miller, David V., Kneibert Clinic
Moffett, James B., 823 Pine Blvd.
Parker, Arthur C., Jr., Kneibert Clinic
Plunkett, Littleton J., Jr., 330 N. 2nd
Raper, Charles A., 330 N. 2nd St.
Robertson, William D., Poplar Bluff
Ruff, T. Eugene, Kneibert Clinic
Tapp, Ernest M., 634 Pine Blvd.
Tatum, John Henry, 623 Pine Blvd.
Tuma, Arthur T., 215 Oak St.
Turner, James H., 217 Oak St.
Turner, William F., 217 Oak St.
Ward, Robert L., 623 Pine
White, Barry B., 330 N. 2nd St.

CALDWELL COUNTY
(Grand River Medical Society)

CALLAWAY COUNTY MEDICAL SOCIETY
(Fulton 65251)

Brown, John J., 101 E. 6th St.
Brown, Katherine S., 1304 Vine St.
Cremer, William J., State Hosp. No. 1
Crews, Robert N., 612 Court St.
Durst, Henry, 610 Court St.
Gish, Rutledge, 5 E. 5th St.
Groce, George, 820 Jefferson St.
Hill, James E., 820 Jefferson St.
Jackson, Vernon B., State Hosp. No. 1
Kepler, Earl C., 207 Lee
Osbourn, Richard A., 102 Saults Addition
Peterson, Donald B., State Hosp. No. 1
Ritterbusch, James K., State Hosp. No. 1
Sydow, Henry A., 102 Saults Addition
Tellez, Edward R., 10 E. Reed
Tuttle, Jay F., State Hosp. No. 1
Wood, George F., 614 Market St.

CAMDEN COUNTY

Carnell, B. M., Camdenton 65020 (Member Mid-Missouri County Medical Society)
Garrison, T. W., Camdenton 65020 (Member Mid-Missouri County Medical Society)
Holley, Donald B., Camdenton 65020 (Member Mid-Missouri County Medical Society)
Wayland, Thomas A., Camdenton 65020 (Member Cole County Medical Society)

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY
(Cape Girardeau 63701)

Alyea, J. O., 937 Broadway
Ashley, Hugh V., P. O. Box 618
Ashley, Hugh V., Jr., P. O. Box 618
Bahn, Charles F., 1902 W. Broadway
Barnes, Seth S., 1854 Broadway
Blankenship, Dale M., 1930 Broadway
Burford, Edwin K., Jr., 937 Broadway
Campbell, Edward D., 937 Broadway
Chapman, Jean A., 1902 W. Broadway
Cochran, Jo R., 24 N. Sprigg St.
Cozean, Charles H., Jr., 937 Broadway
Crowe, John T., 937 Broadway
Dinkins, James A., 937 Broadway
Elrod, Dennis B., 211 N. Sprigg St.
Estes, Albert M., 714 Broadway
Herbert, Charles T., 824 Good Hope St.
Holcomb, John K., 24 N. Sprigg St.
Hoxworth, Gerald M., 210 Christine St.
Jaeger, Joseph N., 208 S. High St., Jackson 63755
Johnson, Earl W., 937 Broadway
Jung, J. Marshall, 101 E. El Cortez, R-4, Columbia 65201
Kasten, Melvin C., 1209 Sailer Circle
Keim, John H., 230 N. Sprigg St.
Kinder, James A., 937 Broadway
Kinder, Jerry L., 1834 Broadway
Kratz, Paul E., 2560 Gordonville Rd.
Lovinggood, Thomas A., 2505 Allendale
McDonald, Eugene F., 125 Court St., Jackson 63755
McGinty, Charles P., 1834 Broadway
Magaletta, George E., 937 Broadway
Nunnelly, Gordon M., 1924 Broadway
Nussbaum, Paul B., 1858 Broadway
Oehler, William F., 213 N. Sprigg St.
Otto, Thomas G., 1912 Broadway
Parsons, D. LeRoy, 24 N. Sprigg St.
Rapp, Harold B., 1011 N. Henderson St.
Rawlins, Fred E., 1607 Berthing Ave.
Reimer, Donald Ross, 937 Broadway
Reynolds, Garland A., P. O. Box 817
Ridings, Harold D., 937 Broadway
Ritter, C. John, 1902 Broadway
Ritter, Raymond A., 1912 Broadway
Seabaugh, L. R., 219 N. Pacific St.
Seabaugh, Oda L., 24 N. Sprigg St.
Seabaugh, William O. L., 24 N. Sprigg St.
Shoss, Milton, 937 Broadway
Sparkman, Thomas C., 601 N. Kingshighway
Stewart, Wendell K., 723 North Sunset
Talbert, Clifford R., 1902 Broadway
Terry, James W., Jr., 219 N. Pacific St.
Tygett, Glenn J., 215 N. Sprigg St.
Tygett, Joseph N., 1834 Broadway
Wallwork, Caleb, Jr., Illmo 63754
Weeks, George R., 937 Broadway
Williams, W. A., Jr., 24 N. Sprigg St.
Wilson, Charles F., 714 Broadway
Wolff, Paul G., 1819 Broadway

CARROLL COUNTY
(Grand River Medical Society)

CARTER-SHANNON COUNTY MEDICAL SOCIETY

Rollins, Harry D., Winona 65588

CASS COUNTY
(West Central Missouri Medical Society)

CEDAR COUNTY
(West Central Missouri Medical Society)

CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

Arnold, Eugene L., 8338 Jennings Rd., Jennings 63136
Baker, Josephine D., Moberly 65270
Barnett, Floyd A., Paris 65275
Campbell, James E., Macon 63552
Chute, W. Deward, Moberly 65270
Cohrs, Clarence C., Moberly 65270
Collins, Gretchen D., Macon 63522
Dreyer, Philip V., Huntsville 65259
Eggleston, Donald E., Macon 63552
Fleming, J. Will, Jr., Moberly 65270
Fleming, Thomas S., Moberly 65270
Harms, Florian L., Salisbury 65281
Hasson, Robert, 95 Saddle Hill Rd., Stamford, Conn. 06903
Huber, Lasley E., Moberly 65270
Miller, D. Herbert, 4410 Denison St., Muskogee, Okla. 74401
Ragsdale, George M., Paris 65275
Rowlette, Avery P., B2-3675 Broadway, Ft. Myers, Fla. 33901
Smith, Carl C., Moberly 65270
Streetor, Roderick D., 245 Union Blvd., St. Louis 63108
Stuart, Daniel D., Brunswick 65236
Szymanski, Stanley R., Macon 63552
Tompson, Robert V., Moberly 65270
Young, Robert H., Moberly 65270

CHRISTIAN COUNTY
(Ozarks Medical Society)

CLARK COUNTY
(Lewis-Clark-Scotland County Medical Society)

CLAY COUNTY MEDICAL SOCIETY

Adams, Howard D., 114 N. Water St., Liberty 64068
Allain, James J., 2022 Swift St., N. Kansas City 64116
Allan, James R., 2218 Mirabeau, Springfield 65800
Allen, Louis A., 2800 Hospital Dr., N. Kansas City 64116
Armstrong, Jay H., 4812 Black Swan Dr., Shawnee Mission, Kan. 66216
Arst, Herbert E., 408 E. 68th St. N., Kansas City 64118
Balhuizen, John, 5601 N. Antioch Rd., Kansas City 64119
Banks, Frank R., Smithville Clinic, Smithville 64089
Bates, George C., 5140 Antioch Rd., Kansas City 64119

Boone, Daniel C., 5800 N. Grand Ave., Kansas City 64118
Bowles, Richard P., 112 N. Water St., Liberty 64068
Bruce, Paul C., 115 S. Titus Ave., Excelsior Springs 64024
Burke, Emmet K., 5140 Antioch Rd., Kansas City 64119
Castillo, Michael E., 2601 Kendallwood Pkwy., Kansas City 64119
Chiles, David R., Box 238, Smithville 64089
Cook, Jerry W., 7010 N. Cherry, Kansas City 64118
Deligeorges, John, 7010 N. Cherry, Kansas City 64118
Denton, Robert E., Smithville 64089
Dernoncourt, John E., Smithville 64089
Devine, Mark W., Jr., 5601 Antioch Rd., Kansas City 64119
Dunham, Robert H., 6022 N. Antioch Rd., Kansas City 64119
Edwards, Theodore F., 2029 Burlington St., Kansas City 64116
Fakhoury, Donald A., 4030 N. Oak St., Kansas City 64111
Fischer, Edward H., Suite 415, 2929 Baltimore Ave., Kansas City 64108
Fotopoulos, Chris K., 2022 Swift, North Kansas City 64116
Fowler, I. Charles, 2025 Swift S., N. Kansas City 64116
Galbol, Harley, Box 950, 522 Elms Blvd., Excelsior Springs 64024
Gauer, Robert J., 525 N.W. 43rd Terr., Kansas City 64116
Glenn, Edward, III, 8630 Oak, Kansas City 64155
Haffner, Joel J., 6908 N.W. Overland Dr., Kansas City 64151
Haley, Ted M., 405 E. 19th Ave., N. Kansas City 64116
Hall, James W., 7010 N. Cherry, Kansas City 64118
Hayes, Lawrence L., 8400 N. Oak Trafficway, Kansas City 64155
Hedges, Richard C., 402 St. Louis Blvd., Excelsior Springs 64024
Hendren, Thomas H., 2022 Swift, Kansas City 64116
Hodge, Robert H., 2204 E. 39th St., N. Kansas City 64109
Houck, Russell M., V. A. Hospital, Kecoughtan, Va. 23367
Huddleston, Harvey T., Smithville Clinic, Smithville 64089
King, Phillip E., Westowne Place, Liberty 64068
Kirkland, Jerry A., 8630 N. Oak Trafficway, Kansas City 64155
Kuenzi, Donald E., 8630 N. Oak Trafficway, Kansas City 64155
Langhus, Melvin O., 104 W. Englewood Rd., N. Kansas City 64118
McCormick, James E., 4030 N. Oak St., Kansas City 64111
McCracken, Samuel R., 107 W. Spring St., Excelsior Springs 64024
McPhee, William R., 2800 Hospital Dr., Kansas City 64116
Marsh, Wallace S., Tulane Univ. School of Postgrad., New Orleans, La. 70118
Mullins, Bernard L., 405 E. 19th St., N. Kansas City 64108
Musgrave, David E., Excelsior Springs 64024
Parker, Robert H., 5601 N. Antioch Rd., Kansas City 64119
Perico, Carlos J., 405 E. 19th Ave., Kansas City 64116
Perry, Lawrence L., Jr., 6300 N. Lenox St., Kansas City 64151
Pileggi, Felix A., 405 E. 19th St., N. Kansas City 64108
Porter, Russell C., 1351 Weeburn Rd., Seal Beach, Calif. 90740
Purcell, P. L., Smithville 64089
Reeder, Charles C., Smithville Clinic, Smithville 64089
Revare, Paul, 4100 Vivion Rd., Kansas City 64119
Richardson, William D., Baptist Medical Center, Nalerigu Via Gambaga, Ghana, W. Africa
Roberts, L. Marvin, 5140 Antioch Rd., Kansas City 64119
Robichaux, Eugene B., 116 South St., Excelsior Springs 64024
Robinson, Van M., 4124 Vivion Rd., Kansas City 64119
Sanders, George E., 116 South St., Excelsior Springs 64024
Sawyer, Floyd E., 5350 N. Oak St. Trafficway, Kansas City 64118
Schertz, Truman B., 2022 Swift St., N. Kansas City 64116
Schultz, Robert V., 1940-152 Highway, Liberty 64068
Slaughter, Carl R., 405 E. 19th Ave., N. Kansas City 64108
Somoza, Jose R., 2800 Hospital Dr., North Kansas City 64116
Soper, William D., 116 South St., Excelsior Springs 64024
Sportsman, Weldon L., Rt. 2, Smithville 64089
Stratman, Clarence A., 1500 N.E. 57th Terr., Kansas City 64118
Thomas, Thomas C., Westowne Place, Liberty 64068
Triplett, Daniel A., 4124 Vivion Rd., Kansas City 64119
Wald, Donald M., 2800 Hospital Dr., N. Kansas City 64116
Waterman, Franklin M., Liberty 64068
Werner, Dean F., 2025 Swift St., N. Kansas City 64116
Werner, Franklin C., 5140 Antioch Rd., Kansas City 64119
Williams, John M., 32 S. Main St., Liberty 64068
Williams, Robert D., Smithville 64089
Withrow, John B., 5601 Antioch Rd., Kansas City 64119
Wright, Earl J., 4319 Claymont Dr., Kansas City 64116

CLINTON COUNTY MEDICAL SOCIETY

Luckenbill, Paul T., Plattsburg 64477
Mabrey, John P., Plattsburg 64477
Ozenberger, Larry A., Plattsburg 64477
Spalding, Wilber B., Plattsburg 64477
Sweiger, James H., Plattsburg 64477

COLE COUNTY MEDICAL SOCIETY
(Jefferson City 65101)

Belden, Edgar A., State Office Bldg.
Bregant, Robert E., 1017 Laurel Dr.
Clark, Kendall A., 515 E. High St.
Cooper, Charles W., 423 Cherry St.
Cox, William A., 105 E. High St.
Doyle, Matthew J., 515 E. High St.
Enloe, L. David, 1200 Moreland
Exon, C. Stuart, 515 E. High St.
Fullgrabe, E. A., State Office Bldg.
Garner, Lynn M., State Division of Health
Gentry, Merritt L., P. O. Box 263, Osage Beach 65065
Gordon, James S., 515 E. High St.
Guhleman, Henry V., Jr., Medical Arts Bldg.
Gurnee, Landon H., 515 E. High St.
Handler, Fred P., 614 Boonville Rd.
Hauser, Robert J., 515 E. High St.
Kelly, Marshall W., 612 E. High St.
Klebba, Larry B., P. O. Box 403
Leslie, J. Paul, 933 Fairmount Blvd.
Leslie, James T., Jr., 213 Jackson St.
Loyd, Earl L., 1448 W. Dunklin St.
McHaney, John W., 606 E. High St.
McKnelly, William V., 507 E. High St.
Mansur, Edward E., 519 S. Carolina Dr. Stuart, Fla. 33494
Matthews, John I., 302 Bolivar St.
Maxey, Hugh W., 1238 Elmerine
Meier, Francis X., 1913 Hayselton Dr.
Meinershagen, Charles W., 111 Forest Hill
Morgan, Philip E., 226 E. Dunklin
Ossman, Julian A., 2505 W. Main St.
Russell, Joseph P., Division of Health
Ryan, Thomas J., 213 Jackson St.
Sanders, Jack S., 515 E. High St.
Schmidt, J. H., 515 E. High St.
Scott, E. David, 2009 E. McCarty
Sennott, John S., 515 E. High St.
Shull, George D., 521 E. High St.
Stauffer, Harry B., 1312 W. High
Stricker, Harold C., 515 E. High St.
Sugarbaker, Everett D., 503 E. High St.
Summers, Joseph S., Jr., 515 E. High St.
Tanner, Robert H., 1910 Greenberry Rd.
Taylor, Leon A., 1104 W. Main
Tietjen, Frederick O., 213 Jackson St.
Wallace, John K., II, 220 Ridgeway Dr.
Watts, Byron E., 515 E. High St.
Wayland, Thomas A., Box 239, Camdenton 65020
Winegar, Alvon C., 515 E. High St.

COOPER COUNTY MEDICAL SOCIETY
(Boonville 65233)

Abele, William A., 329 Main St.
Avery, Willard B., 329 Main St.
Beckette, Theodore C., 317 Main St.
Boley, James O., 3200 E. Meyer Blvd., Kansas City 64132
Chamberlain, Gilbert L., 570 E. Spring St.
Diekroeger, Manuel L., Route 1
Hata, Daikichi, 329 Main St.
Humphreys, Edward T., 329 Main St.
Stuart, Byron M., 329 Main St.
Winn, George W., 329 Main St.

CRAWFORD COUNTY
(Mid-Missouri County Medical Society)

DADE COUNTY
(Dallas-Hickory-Polk-Dade Medical Society)

DALLAS-HICKORY-POLK-DADE COUNTY MEDICAL SOCIETY

Barnett, Charles H., Bolivar 65613
Bauer, Harold A., Lockwood 65682
Brooks, John M., 840 S. Pickwick St., Springfield 65804
Griffin, Evelyn, Buffalo 65622
Griffin, Olin A., Jr., Buffalo 65622
Harrell, Henry J., Rt. 1, Box 263B, Summerfield, Fla. 32691
Kahler, Monte R., Bolivar 65613
Koon, Ben H., Bolivar 65613
McCraw, Doyle C., Bolivar 65613
McNeel, Lee A., Jr., Greenfield 65661
Robinson, George G., Humansville 65674

DAVIESS COUNTY
(Grand River Medical Society)

DEKALB COUNTY
(Grand River Medical Society)

DENT COUNTY
(Mid-Missouri County Medical Society)

DOUGLAS COUNTY
(South Central Counties Medical Society)

DUNKLIN COUNTY MEDICAL SOCIETY

Baldwin, Paul, Kennett 63857
Benson, Leo J., Jr., Kennett 63857
Cash, Charles R., Kennett 63857
Croom, Dorwyn W., Malden 63863
Dunmire, George Q., Kennett 63857
English, Wallace D., Cardwell 63829
Hopkins, Florian G., Gideon 63848
Hunt, John L., Campbell 63933
Legan, John K., Kennett 63857
Miltenberger, Paul C., Kennett 63857
Morehead, William E., Malden 63863
Palenske, Robert L., Hornersville 63855
Peck, Chester R., Jr., Kennett 63857
Pu, Pin H., Kennett 63857
Rutledge, William J., Campbell 63933
Tarver, Quinton, Kennett 63857
Wilson, Loys C., Kennett 63857
Zimmerman, Joe A., Kennett 63857

FRANKLIN-GASCONADE-WARREN COUNTY MEDICAL SOCIETY

Baker, Donald L., Union 63084
Bonney, Samuel C., Washington 63090
Bozzo, Raymond J., Washington 63090
Brenner, Paul A., Owensville 65066
Crawford, Robert M., Sullivan 63080
de la Torre, John J., Sullivan 63080
Denny, Hubert M., P. O. Box 387, Union 63084
Eisenmann, Benjamin P., New Haven 63068
Eyermann, H. Walter, Warrenton 63383
Farrell, S. L., Washington 63090
Hoelscher, Harold F., Warrenton 63383
Jorel, Louis E., Hermann 65041
Mays, Frank G., Washington 63090
Mitchell, Thomas J., St. Clair 63077
Moellenhoff, Robert W., Washington 63090
Murney, Joseph A., Washington 63090
Post, John P., Washington 63090
Richardson, George A., Union 63084
Richardson, William R., Union 63084
Royse, Roy P., Sullivan 63080
Ryan, John B., Washington 63090
Schmidt, Charles A., Gerald 63037
Shea, James G., Gerald 63037
Steinbeck, Herbert D., Mamansco Rd., Ridgefield, Conn. 06877
Strehlman, Benjamin G., Union 63084
Workman, George M., Hermann 65041

GASCONADE COUNTY
(Franklin-Gasconade-Warren County Medical Society)

GENTRY COUNTY
(Northwest Missouri Medical Society)

GRAND RIVER MEDICAL SOCIETY (Caldwell-Carroll-Livingston-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb Counties)

Allen, Erroll W., Carrollton 64633
Atcheson, Windsor B., Trenton 64683
Bales, Eugene L., Carrollton 64633
Bohnsack, Ralph W., Brookfield 64628
Brennan, Raymond J., Chillicothe 64601
Broyles, Watkins A., Bethany 64424
Carter, Howard, Hamilton 64644
Conrad, Joseph, Chillicothe 64601
Cross, Albert D., Trenton 64683
Daley, Frank R., Hamilton 64644
Dixon, John R., Brookfield 64628
Dowell, Donald M., Chillicothe 64601
Dowell, J. Larry, Pattonsburg 64670
Duffy, Oliver F., Trenton 64683
Ellsworth, Willard, Cainsville 64632
Fair, William L., Chillicothe 64601
Fuson, William A., Trenton 64683
Gale, Joseph F., Chillicothe 64601
Gary, George, Marceline 64658
Gearhart, Merriam, Bethany 64424
Gilliland, Charles E., Cameron 64429
Horner, Glennon A., 285 Hally Ave., Fayetteville, Ark. 72701
Howell, Billy D., Brookfield 64628
Kimberlin, Herbert C., Trenton 64683
McArtor, Thomas R., Browning 64630
Magill, Joseph S., Milan 63556
Mandler, George, Chillicothe 64601
Nixon, Edward E., Gallatin 64640
Pemberton, Charles W., 1111 Army-Navy Dr., Arlington, Va. 22202
Platz, John H., Carrollton 64633
Smith, Robert W., Marceline 64658
Staton, R. Hamilton, Carrollton 64633
Todd, Paul C., Marceline 64658
Vandiver, Virgil D., Chillicothe 64601
Vinyard, Jack L., Carrollton 64633
Weir, R. S., 1623 N.W. 2nd Ave., Delray Beach, Fla. 33444
Wilson, Fred K., Winston 64689

GREENE COUNTY MEDICAL SOCIETY (Springfield)

Allen, Jerry H., 1211 S. Glenstone St., 65804
Allison, James B., 2200 E. Sunshine, Springfield 65804
Anthony, Dallas D., Professional Bldg. 65806
Ash, Charles J., Professional Bldg., 65806
Ashley, Thomas E., 1211 S. Glenstone St. 65804
Atkinson, Thomas E., Jr., 609 E. Cherry St. 65806
Auner, Cecil R., 600 S. Glenstone St. 65802
Back, Donald K., 1211 S. Glenstone St. 65804
Bailey, Alan B., 609 Cherry 65806
Baldwin, Richard, 600 S. Glenstone St. 65802
Barnhill, Floyd R., 600 S. Glenstone 65802
Bentley, John D., 419 Professional Bldg. 65806
Blades, Ross D., 1211 S. Glenstone St. 65804
Blaisdell, Glenn D., 2133 Meadow Dr. 65804
Bonebrake, MacDonald, Professional Bldg. 65806
Broaddus, Loren, 1550 E. Sunshine 65804
Brown, James T., 1653 S. National St. 65804
Brown, Lyman D., 604 Empire Bldg. 65806
Burkey, Jordan W., Professional Bldg. 65806
Burns, Thomas J., 2740 S. Glenstone 65804
Busiek, Erwin F., Professional Bldg. 65806
Busiek, Paul J., Professional Bldg. 65806
Busiek, Urban J., Professional Bldg. 65806
Callaway, Guy D., 1155 S. Delaware St. 65804
Callaway, Guy D., Jr., 1211 S. Glenstone St. 65804
Carr, Phillip W., 1211 S. Glenstone 65804
Cheek, J. William, 609 Cherry 65806
Christy, Raymond A., Jr., 1211 S. Glenstone St. 65804
Clarke, Michael J., 609 Cherry 65806
Clary, William F., 1636 S. Glenstone St. 65804
Clawson, James W., Professional Bldg. 65806
Clayton, Edgar L., Professional Bldg. 65806
Cochran, Thomas E., Jr., 2423 Brentwood Blvd. 65804
Coller, Frederick C., 2433 Marlan St. 65802
Conrad, Raymond C., 609 Cherry St. 65806
Cook, James R., 2258 Barataria 65804
Cordonnier, James K., 1550 E. Sunshine 65804
Crawford, Oral B., Professional Bldg. 65806
Cunningham, Darral D., 1715 Boonville Ave. 65803
Dillard, Erin M., Professional Bldg. 65806
Dills, Joseph N., 1715 Boonville Ave., 65803
Dolan, Daniel L., Professional Bldg. 65806
Duncan, Robert D., 1534 E. Sunshine 65804
Elkins, Ronald F., 2830 E. Glenwood 65804
Ellis, Francis J., Professional Bldg. 65806
Ellis, Harry L., Professional Bldg. 65806
Emery, Frank E., 118 Professional Bldg., 65806
Evans, Ezra L., Jr., Apt. 1702, 833 E. Elm., 65806
Farthing, Fred R., 1234 E. Walnut St. 65802
Farthing, Gene W., 1636 S. Glenstone St. 65804
Ferguson, John L., 1550 E. Sunshine 65804
Ferguson, John P., Jr., 1219 S. Clay St. 65804
Ferrell, Thomas E., Jr., 1550 E. Sunshine Blvd. 65804
Fitch, C. H. Max, 1711 Boonville Ave. 65803
Fogerson, Virginia L., 1125 S. Karla 65804
Francis, William C., 600 S. Glenstone St. 65802
German, Walter A., Jr., 1211 S. Glenstone St. 65802
Giddings, Frank C., Burge Protestant Hosp. 65803
Giffin, James M., Professional Bldg., 65806
Glenn, Elmer E., 10639 Roundelay Circle, Sun City, Ariz. 85351
Glynn, Robert R., 1211 S. Glenstone St. 65802
Gorelick, David F., Professional Bldg. 65806
Gose, Don F., 1550 E. Sunshine 65804
Hall, David W., 2122 Wayland Dr. 65804
Hall, Durward G., 2442 S. Fremont 65804
Hanan, Ernest B., 724 E. Kingsbury 65804
Hanss, Armand W., 3500 Cherry 65804
Harmon, Ben C., 1211 S. Glenstone St. 65804
Harvey, Harold D., 1531 E. Sunshine 65804
H'Doubler, Charles E., Professional Bldg. 65806
H'Doubler, Francis T., Jr., Professional Bldg. 65806
H'Doubler, Peter B., 609 Cherry St., Suite 114 65806
Herfkens, Kenneth D., 609 Cherry, 65806
Hogeboom, George W., P. O. Box 1017, Delray Beach, Fla. 33444
Holland, Robert D., 1211 S. Glenstone 65804
Hollis, Richard W., Professional Bldg. 65806
Holmes, Daniel E., Route 9, Box 191 65804
Holmes, David R., 1636 S. Glenstone St. 65804
Hoover, H. Lee, Jr., 1330 E. Walnut St. 65802
Horton, James D., Professional Bldg. 65806
Hubbard, Sally L., 901 S. National 65802
Huewe, Douglas A., 609 Cherry 65806
Hulstra, Johannes F. W., 1211 S. Glenstone St. 65804
Ivy, Henry B., 600 S. Glenstone St. 65802
Jameson, James E., Professional Bldg. 65806
Jobe, Charles L., Jr., 1211 S. Glenstone 65804
Johnson, George A., 229 Professional Bldg. 65806
Johnson, Warford B., Professional Bldg. 65806
Johnson, William F., Professional Bldg. 65806
Johnston, Joseph L., 2855 Southern Hills Blvd. 65804
Jones, Harold L., 1550 E. Sunshine 65804
Key, James S., Professional Bldg. 65806
Klingner, George M., 1630 N. Jefferson St. 65803
Klingner, George M., Jr., 1630 N. Jefferson 65803
Knabb, Arthur D., 1630 N. Jefferson St. 65803
Knabb, Henry F., Jr., 1630 N. Jefferson St. 65803
Knabb, Kenneth E., 1630 N. Jefferson St. 65803
Kolze, Vernon W., 600 S. Glenstone 65802
Langston, Walter R., Professional Bldg. 65806
Leagus, Charles J., Jr., 1211 S. Glenstone 65804
Leidinger, Karl J., Republic 65738
Lemmon, George B., Prof. Bldg. 65806
Lewis, Noel R., 1423 N. Jefferson Ave. 65803
Litton, Lyle D., Burge Protestant Hosp. 65803
Lockhart, Charles E., Professional Bldg. 65806
Loeb, Richard H., 1211 S. Glenstone 65804
Lorenc, Ernest, Professional Bldg. 65806
Lovett, Robert L., 1423 N. Jefferson 65802
Lowe, Horace A., Jr., 114 Professional Bldg. 65806
Lurie, Harold H., 600 S. Glenstone St. 65802
McAlhany, Howard J., 609 Cherry St. 65806
McKinsey, John J., Professional Bldg. 65806
Maddux, William P., Professional Bldg. 65806
Maher, Robert W., Professional Bldg. 65806
Mantell, Jack M., 1550 E. Sunshine 65804
Maple, Francis M., 1211 S. Glenstone St. 65804
Menchetti, Don E., 1630 N. Jefferson Ave. 65803
Michael, Harvey R., 1211 S. Glenstone 65804
Milne, Jay L., 609 Cherry St. 65806
Morton, Paul C., 1508 E. Stanford 65804
Moseley, F. Thomas, 609 Cherry St. 65806
Napper, Marvin L., Professional Bldg. 65806
Neu, Leo T., Jr., 3008 Carlisle Circle 65804
Olson, Elbert R., 609 Cherry 65806
Overend, Don S., 1211 S. Glenstone St. 65804
Palcheff, Chris L., 1636 S. Glenstone St. 65804
Park, William I., Jr., Professional Bldg. 65806
Parlato, George S., 107 Professional Bldg. 65806
Penninger, William H., 600 S. Glenstone St. 65802
Peterson, Stanley S., 1211 S. Glenstone St. 65804
Podrecca, Guido I., Professional Bldg. 65806
Polk, John W., 609 Cherry St. 65806
Powell, Edwin M., Professional Bldg. 65806
Prater, Bill G., Professional Bldg. 65806
Pruett, Paul L., Professional Bldg. 65806
Quinn, Paul S., 1423 N. Jefferson 65802
Rainwater, Elmer H., Professional Bldg. 65806
Rigney, Levi M., 505 Woodruff Bldg. 65806
Robinson, Gary L., 609 Cherry 65804
Rosen, Max, Professional Bldg. 65806
Russell, Earl D., 1503 S. Glenstone St. 65804
Sala, Jose M., 1423 N. Jefferson Ave. 65803
Scanlon, Robert C., 1711 Boonville St. 65803
Schaeffer, Edward M., 600 S. Glenstone St. 65802
Schroff, Carle H., 1630 N. Jefferson Ave. 65803
Schwartz, Eugene J., Professional Bldg. 65806
Schweitzer, Fred C., Jr., Woodruff Bldg. 65806
Shackter, Bruce I., 609 Cherry, Room 406, 65806
Shane, Ramon A., 609 Cherry 65806
Siceluff, Joseph G., 609 Cherry St. 65806
Silsby, Don J., Professional Bldg. 65806
Silsby, Harry D., Professional Bldg. 65806
Simpson, Albert P., 318 St. Louis St. 65806
Simpson, Emerson L., 1630 N. Jefferson Ave. 65803
Smith, C. Souter, 1223 S. Kenwood 65804
Snead, William H., Jr., Professional Bldg. 65806
Spalding, David L., Professional Bldg. 65806
Stewart, Robert B., 600 S. Glenstone St. 65802
Stewart, R. Wendell, Professional Bldg. 65806
Stufflebam, Robert E., 2323 E. Rosebrier 65804
Sturtevant, Harwood N., Professional Bldg. 65806
Sundstrom, Frank D., 1211 S. Glenstone St. 65804
Tarrasch, Ernest L., 1636 S. Glenstone St. 65804
Taylor, William E., Southwest Missouri State College 65802
Terry, James F., 609 Cherry 65806
Thomasson, David D., 600 S. Glenstone St. 65802
Tillman, Walter W., Jr., Professional Bldg. 65806
Tombridge, Thomas L., Professional Bldg. 65806

Trotter, W. Yates, 1243 E. Catalpa 65804
Tsang, John L. K., 1636 S. Glenstone St. 65804
Turner, Glenn O., Professional Bldg. 65806
Vensel, Lee H., 600 S. Glenstone St. 65802
Waddell, Kenneth E., 1211 S. Glenstone St. 65804
Wakeman, J. Newton, 600 S. Glenstone St. 65802
Walker, William M., Professional Bldg. 65806
Warres, Herbert L., 2614 Englewood Rd. 65804
Waterfield, Jim R., 1211 S. Glenstone St. 65804
Webb, Leslie R., Jr., 1243 E. Loren 65804
White, R. Ned, Professional Bldg. 65806
Whitlock, C. Courtney, Professional Bldg. 65806
Williams, John W., 600 S. Glenstone St. 65802
Williams, John W., Jr., 1227 Roanoke St. 65804
Wilson, Roy E., 1211 S. Glenstone St. 65804
Wise, Gordon F., Professional Bldg. 65806
Wittmer, Samuel C., 600 S. Glenstone St. 65802
Wong, George, Jr., 1636 S. Glenstone 65804
Wood, William W., 2200 E. Sunshine 65804
Wooldridge, Wilfred E., Professional Bldg. 65806
Wyrsch, Leo M., Jr., 304 Professional Bldg. 65806
Yancey, Daniel L., 1211 S. Glenstone St. 65804
Zahn, Robert L., Professional Bldg. 65806

GRUNDY COUNTY
(Grand River Medical Society)

HARRISON COUNTY
(Grand River Medical Society)

HENRY COUNTY MEDICAL SOCIETY

Bradshaw, William D., Clinton 64735
Hollingsworth, Ray S., Clinton 64735
Hughes, Shelby B., Clinton 64735
Jones, Edna M., Clinton 64735
King, Richard H., Clinton 64735
Smith, James O., Clinton 64735
Smith, William J., Windsor 65360
Walker, Hugh B., Clinton 64735

HICKORY COUNTY
(Dallas-Hickory-Polk-Dade County Medical Society)

HOLT COUNTY
(Northwest Missouri Medical Society)

HOWARD COUNTY MEDICAL SOCIETY

Bloom, W. A., Fayette 65248
Dean, Francis D., Fayette 65248
Leech, Maurice P., Fayette 65248
Marshall, William G., Glasgow 65254
Shaw, William J., Fayette 65248
Shaw, William J., Jr., Fayette 65248

HOWELL COUNTY
(South Central Counties Medical Society)

IRON COUNTY
(Mineral Area County Medical Society)

JACKSON COUNTY MEDICAL SOCIETY
(Kansas City)

Aaron, George A., 10901 Winner Rd., Independence 64052
Abrams, Bernard M., 751 E. 63rd St., 64110
Adelman, Arthur, 601 E. 63rd St. 64110
Adler, Federico, 601 E. 63rd St. 64110
Agee, Loren G., 11201 Colorado 64137
Aks, Daniel, 751 E. 63rd St. 64110
Alberg, Marvin R., 1002 Walnut 64106
Alderman, Thomas F., 7540 Troost 64131
Allebach, H. K., 6400 Prospect 64132
Allen, Robert E., 4320 Wornall Rd. 64111
Allen, William B., 4620 Nichols Parkway 64112
Alsop, Webb S., Jr., 3604 W. 53rd St., Shawnee Mission, Kan. 66205
Altomare, Edward P., 1030 W. 65th 64113
Altringer, Arthur N., 5630 Mission Dr., Shawnee Mission, Kan. 66208
Ammatelli, Francis J., 7546 Troost St. 64131
Amoury, Raymond A., 1710 Independence Ave. 64106
Anderson, K. Clair, 2120 S. Pacific, Albany, Ore. 97321
Anderson, Raymond B., 1710 Independence Ave. 64106
Anderson, Richard W., 1001 Romany Rd. 64113
Andrews, Berneil W., Suite 400, 2929 Baltimore Ave., 64108
Andrus, Bailey C., 4320 Wornall Rd. 64111
Angles, Luis E., 701 E. 63rd St. 64110
Arbab, Ali A., 751 E. 63rd 64110
Arms, Arnold V., 4320 Wornall Rd. 64111
Arnold, John D., 24th & Cherry Sts. 64108
Aschman, Theodore H., Plaza Time Bldg. 64112
Asher, A. Graham, 4706 Broadway 64112
Atcheson, Bellefield, 11123 Locust St. 64131
Atwell, Floyd C., 4620 Nichols Parkway 64112
Averill, Keith H., 2316 E. Meyer Blvd. 64132
Baer, Alvin J., 751 E. 63rd St. 64110
Baker, Philip J., 11440 E. 47th St. 64133
Ball, David A., 4320 Wornall Rd. 64111
Ballard, V. Bryce, 4320 Wornall Rd. 64111
Bare, Chester I., Jr., 10501 E. 78th Terr. 64138
Barelli, Pat A., 4177 Broadway 64111
Barloon, James H., 9406 E. 63rd St. 64133
Barnard, John L., Jr., 4320 Wornall Rd. 64111
Barnett, Gordon P., 6568 High Dr., Shawnee Mission, Kan. 66208
Barr, Glenn A., 4949 Rockhill Rd. 64110
Barry, Gerald W., 1948 E. Parvin Rd. 64116
Barry, William B., 4320 Wornall Rd. 64111
Basantz, Fernando V., 2025 W. 91st St., Leawood, Kan. 66208
Baska, Richard E., 751 E. 63rd St. 64110
Bass, Walter R., 9503 E. 63rd St. 64133
Bauer, Lafe W., Suite 350, 2929 Baltimore Ave., 64108
Baum, Frank E., 701 E. 63rd St. 64110
Baumhardt, Edward E., 4320 Wornall Rd. 64111
Bay, Merrill R., 1808 W. Main St., Blue Springs 64015
Beatty, Arch J., 1816 E. 63rd 64130
Beatty, Eugene C., 1710 Independence Ave. 64106
Beatty, Nina D., 24th & Cherry Sts. 64108
Beck, Calvin E., 4320 Wornall Rd. 64111
Becker, Richard R., 415 E. 63rd St. 64110
Becker, Rolfe A., 601 E. 63rd St. 64110
Bell, William F., 615 W. 3rd St., Lee's Summit 64063
Bence, Jackson J., 4426 Penn 64111
Bennett, James D., 6700 Troost 64131
Benoit, Hector W., Jr., 4620 Nichols Parkway 64112
Benson, William F., 4320 Wornall Rd. 64111
Berenson, Sheldon E., 4620 Nichols Parkway 64112
Bergmann, Victor H., 105 Ward Parkway 64112
Bernreiter Michael, 1246 W. 63rd St. 64113
Berry, Guy N., 4320 Wornall Rd. 64111
Berry, Maxwell G., 4320 Wornall Rd. 64111
Bickley, James E., 4620 Nichols Pkwy. 64112
Biggs, Alfred D., 6400 Prospect Ave. 64132
Biggs, Harry L., 63rd & Evanston 64133
Bikales, Victor W., 751 E. 63rd St. 64110
Bills, Marvin L., Plaza Time Bldg. 64112
Black, Don A., 6400 Prospect Ave. 64132
Black, Eugene C., Professional Bldg. 64106
Black, Thomas C., Jr., 601 E. 63rd 64110
Blim, Richard D., 4320 Wornall Rd. 64111
Bordy, Marvin D., 601 E. 63rd St. 64110
Borenstine, Joseph, 601 E. 63rd St. 64110
Borsuk, Gregory M., 535 Blue Ridge Tower 64133
Bortnick, Eugene, 751 East 63rd St. 64110
Botwin, Arnold E., 751 E. 63rd 64110
Boughnou, Harvey P., 315 Nichols Rd. 64112
Bourke, Timothy S., 4620 Nichols Pkwy. 64112
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Bradford, John F., 4320 Wornall Rd. 64111
Brady, Arthur M., 3039 Brooklyn 64109
Brams, Jack B., 601 E. 63rd St. 64110
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Brock, Bernard, 31st & Wyandotte 64108
Brown, Adrian J., 12 E. 63rd St. 64113
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Brown, Irwin S., 4320 Wornall Rd. 64111
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Brown, Robert S., 4706 Broadway 64112
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Bruner, Robert E., 14909 Little Blue Rd. 64136
Brust, Carl H., 6114 Howe Dr., Mission, Kan. 66205
Bryan, William H., Jr., 3939 Prospect Ave. 64130
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Buckingham, William W., 310 W. 49th 64112
Buckner, Robert C., Plaza Parkway Bldg. 64112
Budke, Harold A., 306 E. 12th St. 64106
Buhler, Victor B., 5212 Belleview Ave., 64112
Buie, Bruce R., 11201 Colorado 64137
Bunting, Williston P., 305 W. 43rd St. 64111
Burry, Virgil F., 1710 Independence 64106
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Byers, Philip L., 4320 Wornall Rd. 64111
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Caldwell, John K., 6700 Troost 64131
Calovich, Emery R., 4620 Nichols Parkway 64112
Campbell, Frederick B., 315 Nichols Rd. 64112
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Cohen, Robert A., 601 E. 63rd 64110
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Cooper, Leo F., 6700 Troost 64131
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Cox, William L., 1465 Spruce Ave., Liberty 64068
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Crockett, James E., 4320 Wornall Rd. 64111

Crow, Martin L., 4177 Broadway 64111
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Davis, Donald R., 4320 Wornall Rd. 64111
Davis, Herbert V., 4620 Nichols Parkway 64112
Davis, Jack M., 6700 Troost 64131
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Davis, Kenneth A., 315 Nichols Rd. 64112
Davis, Richard E., 4643 Wyandotte St. 64112
Davis, Robert C., 659 W. 61st Terr. 64113
Decker, Albert I., 1735 Baltimore 64108
Deeken, James H., 411 Nichols Rd. 64112
DeMaria, Peter F., 8125 E. Gregory Blvd. 64133
DeMott, John D., 411 Nichols Rd. 64112
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Elliott, Raymond G., Bryant Bldg. 64106
Elliott, Wade E., 710 W. 12th St. 64105
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Eubank, Dillard M., 9406 E. 63rd St. 64133
Eubank, William R., 6700 Troost 64131
Eubank, William Y., 6400 Prospect 64132
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Ferguson, Donald S., 2012 E. 24th St. 64127
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Fitzgerald, Robert H., 6400 Prospect 64132
Flanders, Virgil E., Professional Bldg. 64106
Flatley, John A., 6700 Troost 64131
Flynn, James M., Meyer & Prospect 64132
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Fowler, James W., 6700 Troost 64131
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Frick, John P., 116 Huntington Rd. 64113
Friedman, Morris L., 601 E. 63rd St. 64110
Fritzlen, Thomas J., 825 W. 63rd St. 64113
Fuhrman, Donald L., 4320 Wornall Rd. 64111
Fulton, Albert E., 310 W. 47th St. 64112
Fury, Tex E., 642 Huntington Rd. 64113
Gainey, Harold L., 4320 Wornall Rd. 64111
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Ganley, William C., Argyle Bldg. 64106
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Garrison, Roy F., 6400 Prospect 64132
Gaskins, John H., 4320 Wornall Rd. 64111
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Goldsich, Edward, 315 Nichols Rd. 64112
Goldstein, Marvin F., 415 E. 63rd St. 64110
Goodson, William H., Jr., 2929 Baltimore 64108
Goolsbee, Robert L., 6700 Troost 64131
Gordon, Morris P., 8300 Troost 64131
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Graham, Patrick G., 4320 Wornall Rd. 64111
Graham, Wallace H., 1815 E. 63rd St. 64130
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Growdon, John A., 6508 Aberdeen Rd., Shawnee Mission, Kan. 66208
Guastello, Mario J., 4320 Wornall Rd. 64111
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Gundle, Sigmund, 751 E. 63rd St. 64110
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Habib, Henry N., 2300 Holmes St. 64108
Hagar, David L., 9406 E. 63rd St. 64133
Haggan, Margaret E., 1321 E. 18th Terr., Lawrence, Kan. 66044
Haight, John M., 3401 E. 12th Blvd. 64127
Haith, Edward E., 751 E. 63rd St. 64110
Haith, Walter F., 2701 E. 31st St. 64128
Hall, Ralph R., St. Luke's Hosp. 64111
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Hamill, Robert W., 4320 Wornall Rd. 64111
Hanes, Robert L., 6700 Troost 64131
Hannas, Ralston R., Jr., 1278 W. 59th St. 64113
Hardacre, Ruth A., 3300 Charlotte St. 64109
Hardy, Henry M., 6606 Overhill Rd., Shawnee Mission, Kan. 66208
Hardy, John W., Professional Bldg. 64106
Harless, Morris S., 4320 Wornall Rd. 64111
Harlow, Lloyd M., 2462 Brooklyn St. 64127
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Haynes, Solon E., 2727 Main St. 64108
Hazen, Robert M., 6400 Prospect 64132
Heilman, Edward J., 6700 Troost 64131
Hellerstein, Stanley, 1710 Independence Ave. 64106
Helman, Richard G., 7721 State Line 64114
Henry, Clarke L., 4320 Wornall Rd. 64111
Herman, Edwin M., 701 E. 63rd 64110
Herrman, George V., 10855 State Line, Apt. 6 64114
Hibbard, Blaine Z., 4320 Wornall Rd. 64111
Hickerson, William H., 604 W. Maple Ave., Independence 64050
Hill, Jack H., Trinity Lutheran Hosp. 64108
Hink, Frederick W., 10229 Independence Rd., Independence 64054
Hirsch, Joe E., 4643 Wyandotte St. 64112
Hoadley, William D., 6400 Prospect 64132
Hodgson, Frank H., 4301 Main St. 64111
Hoech, George P., Jr., 6400 Prospect 64132
Hoeper, Samuel D., 12921 Grandview Rd., Grandview 64030
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Hogue, Frank S., 4320 Wornall Rd. 64111
Hollinger, Lloyd A., 6700 Troost 64131
Hollweg, Kenneth C., 4320 Wornall Rd. 64111
Holt, Waldo S., 4620 Nichols Parkway 64112
Holton, Edward B., 10901 Winner Rd., Independence 64052
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Hopkins, James P., 6700 Troost 64131
Hornstra, Robijn K., 600 E. 22nd St. 64108
Huet, Raul, 2625 W. Paseo 64108
Hungate, Carroll P., Professional Bldg. 64106
Hunt, Thomas R., 6400 Prospect 64132
Hunter, Martin P., 4706 Broadway 64112
Hunzicker, Warren J., 3520 Broadway, Box 139, 64141
Hurwitt, Frank, 214 E. Armour, 64111
Huse, William J., 4706 Broadway 64112
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Irvine, John W., 9503 E. 63rd St. 64133
Irwig, Fred, 4706 Broadway 64112
Ise, Frank H., 6400 Prospect 64132
Jackson, Haywood R., 3317 E. 43rd St. 64130
Jacob, Walter P., 601 E. 63rd St. 64110
Jacobs, Morton, 6314 Brookside Plaza 64113
Jacobs, Walter H., 601 E. 63rd St. 64110
James, Otis E., Jr., 6306 Morningside Dr. 64113
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Johnson, James S., 4301 Cleveland 64130
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Johnson, Thomas M., 4620 Nichols 64112
Johnson, William A., 2200 Prospect 64127
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Keeler, James E., 4320 Wornall Rd. 64111
Keitges, Pierre W., 4949 Rockhill Rd. 64110
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Ketterman, Grace H., 225 W. 43rd St. 64111
Ketterman, Herbert L., 11201 Colorado 64137
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Kirk, Robert V., 6400 Prospect 64132
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Knight, John S., 305 W. 43rd St. 64111
Knight, Lyle B., 108 Madison, Lee's Summit 64063
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Kranson, Seymour J., 11200 Winner Rd.. Independence 64052
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Landers, Burnell, 6400 Prospect 64132
Landis, George K., Professional Bldg. 64106
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Latham, Raymond W., 4620 Nichols Parkway 64112
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Layle, John K., Jr., 4320 Wornall Rd. 64111
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Lee, Henry A., 6700 Troost 64131
Lee, King Ying, 6700 Troost 64131
Lehner, Richard L., Professional Bldg. 64106
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Leo, William A., 6400 Prospect 64132
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Littlejohn, Robert T., Professional Bldg. 64106
Lloyd, Ivan E., 1 Penn Valley Park 64141
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McCalla, John P., 649 Huntington Rd., 64113
McCallister, Ben D., 4320 Wornall Rd. 64111
McCanse, Andrew, 4320 Wornall Rd. 64111
McClanahan, Robert C., 1102 Grand Ave. 64106
McConchie, James E., 10901 Winner Rd. Independence 64052
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McCullough, Campbell C., Argyle Bldg. 64106
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McDonnell, John F., 4320 Wornall Rd. 64111
McFarland, H. Richard, 4320 Wornall Rd. 64111
McFarland, M. Donald, 4320 Wornall Rd. 64111
McGannon, Paul T., 6400 Prospect 64132
McGuire, Thomas H., 429 W. 58th St. 64113
McIntosh, Donald E., 6400 Prospect 64132
McIntyre, John D., 7707 Pennsylvania 64114
McKee, Wallace P., 4320 Wornall Rd. 64111
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McLeod, John, 9 E. 67th St. 64113
McMillan, Thomas E., 6400 Prospect 64132
McNutt, Theodore L., 11201 Colorado 64137
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McVay, James R., Jr., V.F.W. Bldg. 64111
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Mantz, Frank A., 4949 Rockhill Rd. 64110
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Marsh, Alice, Pleasant Hill 64080
Marshall, Cameron F., 5510 Belinder Rd., Shawnee Mission, Kan. 66205
Marshall, Hal E., 4949 Rockhill Rd. 64110
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Martin, Daniel C., 24th & Cherry Sts., 64108
Mason, Wayne E., 6700 Troost 64131
Masterson, Byron J., 4620 Nichols Parkway 64112
Masucci, Joseph M., Argyle Bldg. 64106
Mayer, John H., Jr., Plaza Parkway Bldg., 64112
Medlicott, William J., 4320 Wornall Rd. 64111
Meegan, Robert J., 425 E. 63rd St. 64110
Melgaard, S. Ross, 6601 Rockhill Rd. 64131
Melendez, J. Richard, 66 E. 22nd 64108
Meriwether, Don R., 5109 W. 60th Terr., Mission, Kan. 66205
Metzl, Kurt, 601 E. 63rd 64110
Meyer, Paul W., 4320 Wornall Rd. 64111
Meyers, Harold L., 601 E. 63rd St. 64110
Miles, George O., 4320 Wornall Rd. 64111
Miller, Clint L., 615 W. 3rd St., Lee's Summit 64063
Miller, Gerald L., 4706 Broadway 64112
Miller, Max I., Suite 350, 2929 Baltimore 64108
Miller, Wilson H., 4620 Nichols Parkway 64112
Mitchell, Andrew D., 4320 Wornall Rd. 64111
Mitchell, Robert H., Bryant Bldg. 64106
Mitra, Nirmal K., 112th Terr. & Grandview Rd. 64134
Mixson, William C., 4320 Wornall Rd. 64111
Montello, Samuel A., 4620 Nichols Parkway 64112
Montgomery, James G., 310 W. 49th St. 64112
Mooney, Justin L., Bryant Bldg. 64106
Mooney, Marcel L., 751 E. 63rd St. 64110
Moore, Robert A., Box 679 64141
Moreano, Armando H., 4301 Main St. 64111
Morest, F. Stanley, P. O. Box 463, Cape Girardeau, 63701
Morgan, David B., 4620 Nichols Parkway 64112
Morley, Louise A., 4907 Neosho, Shawnee Mission, Kan. 66205
Morris, Joseph H., Jr., 4240 Blue Ridge Blvd. 64133
Morrison, Donald H., 4620 Nichols Pkwy. 64112
Moss, Paul, 4706 Broadway 64112
Mosser, Robert S., 4240 Blue Ridge Blvd. 64133
Mount, Allan, 1509 W. Truman Rd., Independence 64050
Muehlberger, James L., 6700 Troost 64131
Mueller, Martin J., 6400 Prospect 64132
Mullen, Leo M., 4443 Paseo Blvd. 64110
Multhauf, Cyril J., 306 E. 12th St. 64106
Mundy, William L., 4635 Wyandotte St. 64112
Murphy, James J., Research Hospital and Medical Center 64132
Murphy, Robert J., 4320 Wornall Rd. 64111
Murray, W. Lee, 11201 Colorado 64137
Muth, Robert G., 24th & Cherry Sts. 64108
Myers, John S., 618 Professional Bldg. 64106
Myers, Robert M., 906 Grand Ave. 64106
Naime, Mansour J., 6700 Troost 64131
Needels, Orval T., 207 W. 67th Terr. 64113
Nelson, Bentley A., 305 W. 43rd St. 64111
Nesselrode, John H., 10901 Winner Rd., Independence 64052
Neumann, James W., 2929 Baltimore 64108
Newman, Robert L., Wornall Rd. at 44th 64111
Nickson, Charles E., Jr., 10901 Winner Rd., Independence 64052
Nicolay, Kenneth S., 4320 Wornall Rd. 64111
Nigro, E. Robert, 415 W. 55th St. 64113
Nigro, Joseph A., 4740 Roanoke, 64112
Nohack, Richardson K., 301 E. Armour 64108
Noltensmeyer, Milton N., Suite 350, 2929 Baltimore Ave. 64108
Novak, Edward J., 3011 Baltimore 64109
Nunn, Pat M., 7 Calhoun Dr., Greenwich, Conn. 06830
O'Farrell, Thomas P., 6400 Prospect 64132
Ogilvie, John H., Box 157, Route 1, Gravois Mills 65037
O'Hearne, John J., 4706 Broadway 64112
O'Kell, Richard T., Wornall Rd. at 44th St. 64111
O'Malley, James F., 6700 Troost 64131
O'Neil, James H., 4706 Broadway 64112
Osborne, Jere O., 644 W. 69th Terr., Kansas City 64113
Ost, Mark D., 16 W. 115th St. 64115
Overesch, Harry B., 6400 Prospect 64132
Owens, Graham J., 4117 Broadway 64111

Constitution and By-Laws

of the

Missouri State Medical Association

Adopted 1903

1970 Revision

515 EAST HIGH ST. JEFFERSON CITY, MO. 65101

Constitution

Article I. Name of the Association

The name and title of this organization shall be the Missouri State Medical Association.

Article II. Purpose

The purpose of this Association is the promotion of the science and art of medicine, the protection of public health, the betterment of the medical profession, and, by uniting with similar organizations in other states and territories of the United States, to form the American Medical Association.

Article III. Membership

Membership in this Association shall be limited to and include all members in good standing in component societies which hold charters from this Association.

Article IV. House of Delegates

The House of Delegates shall be the legislative body of this Association and shall consist of delegates elected by the component societies. It shall elect a Speaker and Vice Speaker from its body. Its Secretary shall be the Secretary of the Missouri State Medical Association.

Article V. Council

The Council shall be the executive body of this Association when the House of Delegates is not in session. It shall be the judicial body of the Association when matters are referred to it for decision by the Association, by component societies or by individual members thereof. It shall consist of the President, President-Elect, Immediate Past-President, Secretary, Treasurer and the duly elected Councilors from each Councilor District. Nine members shall constitute a quorum.

Article VI. Sessions and Meetings

Section 1. The Association shall hold an Annual Session at a place fixed by the House of Delegates, the time of which shall be fixed by the Council.

Sec. 2. Special meetings of the Association or of the House of Delegates may be called by a two thirds vote of the Council and shall be called upon a petition signed by members equal in number to one third of the total number of delegates certified for the last Annual Session.

Article VII. Officers

Section 1. The officers of this Association shall be a President, a President-Elect, three Vice Presidents, a Secretary, a Treasurer, a Speaker and a Vice Speaker of the House of Delegates and ten Councilors selected as provided for.

Sec. 2. All officers except Councilors shall be elected annually. The terms of Councilors shall be two years. Half of the membership of the Council shall be elected each year. The Secretary and the Treasurer shall be elected by the Council. The delegates present from each Councilor District shall meet prior to the last day of the Annual Session and elect the Councilor from that district. In the event of death, resignation or removal of any Councilor, the Council may appoint a successor to serve until the vacancy is filled at the next Annual Session. All of the officers shall serve until their successors are elected and installed.

Article VIII. Funds, Expenses and Budget

Funds shall be raised by a per capita assessment on each component society. The amount of the assessment shall be fixed by the House of Delegates. Funds may also be raised in any other manner approved by the House of Delegates. The Council shall submit an annual budget to the House of Delegates. All resolutions providing for appropriations shall be referred to the Council and all appropriations approved by the Council shall be included in the annual budget.

Article IX. Referendum

At any General Meeting of the Association it may, by a two thirds vote, order a general referendum upon any question pending before the House of Delegates. The House of Delegates may, by a vote of its members, submit any question to the membership of the Association for its vote. A majority vote of all members of the Association shall determine the question.

Article X. Seal

The Association shall have a common seal. The power to change or renew the seal shall rest with the House of Delegates.

Article XI. Amendments

The House of Delegates may amend any article of this Constitution by a two thirds vote of the delegates present and voting at any Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session and that it shall have been published twice during the year in the Journal of this Association or sent officially to each component society at least two months prior to the meeting at which final action is to be taken.

By-Laws

CHAPTER I. MEMBERSHIP

Section 1. Members of this Association shall be physicians whose names have been certified by secretaries of component societies to the Secretary of this Association that they are duly elected members of a component society and are legally qualified physicians practicing in Missouri except as otherwise provided. Each member must be a citizen of the United States, of good moral and professional standing, and must not support, nor practice, nor claim to practice any exclusive system of medicine.

Sec. 2. No person who is under sentence of suspension or expulsion from any component society of this Association or whose name has been dropped from its roll of members shall be entitled to any of the rights or benefits of this Association.

Sec. 3. There shall be three classes of members as follow:

Active Members shall be limited to those members of component societies who (1) hold the degree of Doctor of Medicine or Bachelor of Medicine, and (2) if permitted by the by-laws of the component society, members who hold the degree of Doctor of Osteopathy, and (3) are entitled to exercise the rights of active membership in their component societies, as determined by their component societies, subject to the provisions of these By-Laws.

Junior members shall be limited to those members of component societies (1) who are serving a full time internship or residency in a hospital approved by the Council on Medical Education of A.M.A., (2) and they shall continue as junior members for the first three years subsequent to the completion of accredited service.

Honor members shall be limited to Honor members of component societies, which societies have requested that active members who have reached advanced years and have long served the Association and the profession be made Honor members of the Association. They shall enjoy all the privileges of active membership and shall be exempt from the payment of dues.

Sec. 4. **Associate members** shall be limited to persons not provided for in the various classes of membership who are engaged in the pursuit of a medical or allied science, and by action of the component societies, become Associate members of the Association. This shall include physicians who meet medical examiners' qualifications but have not received their citizenship, these Associate members to apply for Active membership within one year after citizenship is granted. Associate members shall have the right to attend scientific sessions and such other privileges as may be extended to them by the House of Delegates. They shall not be eligible to vote and shall be exempt from the payment of dues.

CHAPTER II. GENERAL MEETINGS

Section 1. The General Meetings shall be open to all registered members and guests.

Sec. 2. Any paper read before this Association shall be considered for publication in the Journal if the Author so desires. Such papers may be given publication priority over regularly submitted papers but shall be subject to the same editorial review and selection policies.

Sec. 3. No person in the active practice of medicine in the State of Missouri shall appear on the program of the Association unless he or she is a member of the Missouri State Medical Association or an affiliated association or organization.

CHAPTER III. HOUSE OF DELEGATES

Section 1. The House of Delegates shall meet annually at the time and place of the Annual Session. It shall remain in continuous session on the first day of the Annual Session and complete the work coming before it at that session. It shall meet on the last day of the Annual Session to receive the report of the Nominating Committee and complete unfinished business and the election of officers. No new business shall be introduced at the last session without the unanimous consent of the delegates.

Sec. 2. Each component county society shall be entitled to send each year one delegate or one alternate to the House of Delegates for each fifty full paid members or fraction thereof in the Association on December 31 of the previous year, plus one additional delegate or alternate for each one hundred members or a major fraction thereof; provided, however, that each component society which is composed of two or more county societies shall be entitled to at least one delegate from each of the counties of which it is composed; however, such delegates must reside or practice in the county they represent. Alternate delegates may be elected from the entire membership of the component medical societies.

Sec. 3. Forty delegates shall constitute a quorum of the House of Delegates. All meetings of the

House of Delegates shall be open to members of the Association.

Sec. 4. From among members of the House of Delegates the Speaker shall appoint reference committees to which reports and resolutions, on a majority vote of the House of Delegates, shall be referred as follows:

Reference Committee on Amendments to the Constitution and By-laws.

Reference Committee on Resolutions.

Reference Committee on Miscellaneous Affairs.

Reference Committee on Medical Education and Public Welfare.

Reference Committee on Reports of Officers.

The Speaker may appoint such other reference committees as he may deem necessary, upon approval of the House of Delegates.

The President shall appoint a Committee on Credentials.

Sec. 5. The House of Delegates shall elect delegates and alternates to the House of Delegates of the American Medical Association in accordance with the Constitution and By-laws of that body.

Sec. 6. The House of Delegates shall divide the state into Councilor Districts specifying what counties each district shall include and, when the best interest of the Association and the profession will be promoted thereby, organize in each a district medical society of which all members of the component county societies shall be members.

Sec. 7. The House of Delegates shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates. Such committees shall report to the House of Delegates and may be present and participate in the debate on their reports.

Sec. 8. The House of Delegates shall receive and act upon a complete and detailed annual audit of receipts and expenses of the preceding year and a proposed budget for the current calendar year which shall have been prepared by the Council and submitted to the component county societies at least four weeks prior to the Annual Session. These shall be published in the Journal.

Sec. 9. The following shall be the general order of business of the House of Delegates for the first meeting of the session:

1. Call to order by the Speaker.
2. Report of the Committee on Credentials.
3. Roll call.
4. Reading and adoption of minutes.
5. Report of officers.
6. Report of committees.
7. Unfinished business.
8. New business.

The following shall be the general order of business of the House of Delegates for the last meeting of the session:

1. Call to order by the Speaker.
2. Report of the Committee on Credentials.
3. Roll call.
4. Reading and adoption of minutes.
5. Report of the Nominating Committee.
6. Election of officers.
7. Reports of officers.
8. Reports of committees.
9. Unfinished business.
10. New business (see Sec. 1, Chap. III).
11. Installation of officers.
12. President's appointments and installation of members to committees.
13. Selection of the place for the next Annual Session.

At any meeting of the House of Delegates, the order of business may be changed by a two thirds affirmative vote of the members present and voting.

Chapter IV. Election of Officers

Section 1. The President on the first day of the Annual Session shall select a Committee on Nominations consisting of ten delegates, no two of whom shall be from the same Councilor District. The Committee on Nominations shall report the result of its deliberations to the House of Delegates in the form of a ticket containing the name of one member for each of the offices listed in Article VII of the Constitution which are to be filled at that Annual Session excepting the President-Elect who shall be nominated from the floor of the House of Delegates.

Sec. 2. All elections of officers shall be by acclamation unless ballot is called for. A majority of the votes cast shall be necessary to elect except for delegates and alternates to the American Medical Association, who shall be elected as follows:

In case no delegates or alternates for the American Medical Association receive on the first ballot a majority of the votes, the nominees shall be declared elected in the order of the highest number of votes received until the allotted number shall have been chosen. In case of a tie vote for delegate or alternate, the tie shall be determined by lot.

In case no nominee for general offices of the Association (see Article VII, Constitution) receives a majority of the votes on the first ballot, the nominee receiving the lowest number of votes shall be dropped and a new ballot taken. This procedure shall be continued until one of the nominees receives a majority of all the votes cast, when he shall be declared elected.

Sec. 3. Nothing in this chapter shall be construed to prevent additional nominations being made from the floor by members of the House of Delegates.

Sec. 4. Delegates present at the Annual Session from Councilor Districts whose Councilors' terms expire shall hold meetings on or before the morning of the last day of the Annual Session and elect a Councilor for their District for a term of two years. The name of the elected Councilor shall be given on a prescribed form to the Secretary for presentation to the House of Delegates. Each candidate for Councilor must reside or practice in the district for which he is elected.

Sec. 5. The Speaker and Vice Speaker shall not serve more than three consecutive terms.

Sec. 6. The Speaker shall appoint a parliamentarian to serve as such during the session of the House of Delegates at each Annual Session and upon whom the Speaker may call before deciding points of order or procedure.

Chapter V. Duties of Officers

Section 1. The **President,** or his designated representative, shall preside at all scientific sessions of the Association. He shall preside at the House of Delegates in the absence of the Speaker or Vice Speaker and until their successors are elected. He shall appoint all committees not otherwise provided for. He shall deliver an annual address at such time as may be arranged and shall perform such other duties as custom or parliamentary usage requires. He shall be the real head of the profession of the state and assist the Councilors in building up the county societies and in making their work more practical and useful.

Sec. 2. The **President** and the **President-Elect** shall be members of the Council and shall attend all meetings of the Council. Should the office of President-Elect become vacant through death or otherwise the Council may fill the vacancy until the next Annual Session of the Association.

Sec. 3. The **Vice Presidents** shall assist the President in the discharge of his duties. In the event of the death, resignation or removal of the President the Council shall select one of the Vice Presidents to serve the unexpired term.

Sec. 4. The **Treasurer** shall give bond in the sum of $20,000. He shall demand and receive all funds due the Association, together with bequests and donations. He shall pay money out of the treasury only on a written order of the President, countersigned by the Secretary; he shall subject his accounts to such examination as the House of Delegates may order, and he shall annually render an account of his actions and of the state of the funds in his hands.

Sec. 5. The **Secretary** shall attend the General Meetings of the Association and the meetings of the House of Delegates, and shall keep minutes of their respective proceedings in separate record books. He shall be Secretary of the Council and shall keep a record of its proceedings. He shall be custodian of all record books and papers belonging to the Association, except such as properly belong to the Treasurer, and shall keep account of and promptly turn over to the Treasurer all funds of the Association which come into his hands. He shall provide for the registration of the members and delegates at the Annual Session. He shall, with the cooperation of the secretaries of the component societies, keep a card index register of all the legal practitioners of the state by counties, noting on each his status in relation to his county society, and shall transmit a copy of this list to the American Medical Association, transmitting to its Secretary each month a report containing the names of new members and the names of those dropped from the membership roster during the preceding month. He shall conduct the official correspondence, notifying members of meetings, officers of their election and committees of their appointment and duties. He shall employ such assistants as may be ordered by the Council and shall make an annual report to the House of Delegates. He shall supply all component societies with the necessary blanks for making their reports and shall collect from them the regular per capita dues and assessments and turn the same over to the Treasurer. The amount of his salary shall be fixed by the Council.

Chapter VI. Council

Section 1. The Council shall meet during the Annual Session at such times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. It shall meet on the last day of the Annual Session to organize. The Council shall elect a Chairman and a Vice Chairman for a term of one year. The Chairman may be reelected to serve not more than four consecutive terms of one year each. The Council shall, through its Chairman, make an annual report to the House of Delegates.

Sec. 2. Each Councilor shall be organizer, peacemaker and censor for his district. He shall visit each county in his district at least once a year for the purpose of organizing component societies where none exists, for inquiring into the condition of the profession, and to keep in touch with the activities of and to aid in the betterment of the component societies of his district. He shall make reports of his work and the condition of the profession of each county in his district to the Council. The necessary traveling expenses incurred by each Councilor in the line of duties herein imposed may be allowed on a proper itemized statement submitted monthly and within the current year, but this shall not include his expense in attending the Annual Session of the Association. No Councilor shall be eligible for the position of Delegate to the House of Delegates during his term of office as Councilor, nor shall he vote in the House of Delegates.

Sec. 3. The Council shall be the executive body of the House of Delegates and between sessions shall exercise the power conferred on the House of Delegates by the Constitution and By-laws.

Sec. 4. The District Councilor together with two members of component societies within the Council District, selected by the Councilor, shall serve as a Board to hear and by a majority vote adjudicate any questions involving the right and standing of members, either in relation to other members or to component societies or to the Association, and all matters of discipline affecting the conduct of members of component societies, or other matters.

The Council shall be the appellate Board of Censors of the Association. It shall hear and adjudicate all matters on appeal from the decision of the Councilor Board; it shall hear and adjudicate matters of an ethical nature brought before the House of Delegates or the general meeting which shall be referred to the Council without discussion. On original decision or appellate determination, its decision shall be final unless appealed to the then convened meeting or the next meeting of the House of Delegates.

Sec. 5. Charters shall be issued to county societies only on approval of the Council, and shall be signed by the President and Secretary of this Association. Upon the recommendation of the Council, the House of Delegates may revoke the charter of any component society whose actions are in conflict with the letter or spirit of this Constitution and By-laws.

Sec. 6. In sparsely settled sections the Council shall have authority to organize the physicians of two or more counties into societies, to be suitably designed so as to distinguish them from district societies, and these societies, when organized and chartered, shall be entitled to all rights and privileges provided for component societies until such counties shall be organized separately.

Sec. 7. The Council shall provide for and supervise the issuance of all publications of the Association including proceedings, transactions and memoirs, and shall have authority to appoint an Editor and such assistants as it deems necessary. It shall prescribe the methods of accounting and through a committee of three of its members, to be known as a Committee on Auditing and Appropriations, shall audit all accounts of this Association. The Council shall adopt an annual budget providing for the necessary expenses of the Association for the following calendar year. This budget shall be prepared and presented for consideration in the last quarter of each year by the Committee on Auditing and Appropriations. A complete and detailed report shall be submitted to the component county medical societies as provided in Section 8, Chapter III. The Council shall submit an annual report of the House of Delegates which shall specify the character and cost of the publications of the Association, the amount and character of all its property, and shall provide full information concerning the management of all affairs of the Association which the Council is charged to administer.

Sec. 8. The Council shall appoint at least six months before the Annual Session, a committee consisting of three of its members to be known as the Committee on Arrangements for the Annual Session. On recommendation of the Committee, the Council shall appoint a general chairman of a Local Committee on Arrangements, who shall be a member of the component society of the county in which the Annual Session is to be held, and who shall appoint and organize from the members of this county society the personnel of the Local Committee on Arrangements. The Local Committee on Arrangements shall provide suitable meeting places and shall have general charge of all local arrangements subject to the approval of the Committee on Arrangements for the Annual Session. All receipts and disbursements related to the Annual Session shall be handled by the Committee on Arrangements on recommendations of the Committee on Budget and Appropriations.

Sec. 9. The Council shall by appointment fill any vacancy in office not otherwise provided for which may occur during the interval between Annual Sessions of the House of Delegates; the appointee shall serve until his successor has been elected and has qualified.

Sec. 10. The salaries of all employees of the Association shall be fixed by the Council.

Sec. 11. The Council shall provide such headquarters for the Association as may be required to conduct its business properly.

Sec. 12. The Council shall be empowered to elect an Executive Secretary and Assistant Executive Secretary and such other personnel as may be necessary, who need not be members of the Missouri State Medical Association, each of whom shall perform such duties as the Council may designate and receive such salary and serve for such periods and under such conditions as the Council may determine.

CHAPTER VII. COMMITTEES AND COMMISSIONS

Section 1. Standing Committees of the Missouri State Medical Association, the chairman of which shall be appointed by the Association President unless otherwise provided in these By-Laws, will be as follows:

Executive Committee.
Committee on Constitution and By-Laws.
Committee on Publication.
Committee on Legislative Affairs.
Committee on Planning.
Committee on Voluntary Health Agencies.

The **Executive Committee** shall consist of the Association President, President-Elect, Secretary, Treasurer, Council Chairman and Council Vice-Chairman. The President of the Association shall be Chairman of the Executive Committee. The Executive Committee shall plan and execute such work as may be necessary for the welfare of the Association and the conduct of the Executive Secretary's Office between meetings of the Council, but shall be responsible at all times to the Council.

The Committee on **Constitution and By-Laws** shall consist of five members named by the President and shall propose such amendments to the Constitution and By-Laws as are deemed wise and expedient, and bring before the House of Delegates such amendments as it or other members of the Association may present for consideration. The President shall appoint one member for one year, two members for two years and two members for three years. As the term of each expires, his successor shall be appointed for a term of three years.

The Committee on **Publication** shall consist of five members and be appointed annually by the Council and shall be responsible for general publication and distribution policies of the Journal. The Editor of the Journal shall be designated by the Council and also shall serve as Chairman of the Committee on Publication. The Editor shall be empowered to nominate an Editorial Board, subject to approval by the Council. The members of the Editorial Board will assist the Editor in soliciting, preparing and reviewing material for publication in the Journal.

The Committee on **Legislative Affairs** shall consist of five members of the Association, appointed annually by the President. The Committee shall consider legislative proposals affecting health problems of the people of the state and the practice of medicine and shall make recommendations to the Council and the House of Delegates as well as directing staff activities in such matters.

The **Planning Committee** shall consist of ten members to be appointed by the President. Two members shall be appointed for one year, two for two years, two for three years, two for four years and two for five years. As the term of each expires, his successor shall be appointed for a term of five years. In making such appointments, the President shall be governed by experience of the member, the size of his medical society and his geographical area, so as to have a representative committee. Age of the members shall be considered to the end that one-third to one-half of the committee shall be of an age group that should contemplate ten to twenty years more of active practice.

The Committee on **Voluntary Health Agencies** shall consist of five members of the Association appointed by the President. Two members shall be appointed for three years, two members for two years and one member for one year. As the term of each expires, his successor shall be appointed for a term of three years. The Committee on Voluntary Health Agencies shall provide liaison and work with all voluntary health organizations.

Section 2. Standing Commissions of the Missouri State Medical Association, who shall be responsible to the Council and whose chaiman shall be appointed by the Association President, will be as follows:

Commission on Public Affairs.

Commission on Medical Economics, Third Party and Governmental Relations.

Commission on Continuing Education and Health Manpower.

Commission on Medical-Legal Affairs.

Commission on Interspecialty Medicine.

Subsection a. The standing Commissions, unless otherwise provided in these By-Laws, shall consist of fifteen members serving three-year terms and the terms will be staggered so that the President will appoint five members of each Commission each year. Initially, the President will appoint five members to one-year terms, five members to two-year terms and five members to three-year terms and no member shall serve more than two consecutive terms.

Subsection b. The Chairman of each Commission may appoint Ad Hoc Committees to carry out the Commission's programs. These Ad Hoc Committees may include any Missouri State Medical Association member.

Subsection c. The Chairman of the Council shall appoint each year an appropriate Councilor to serve as advisor to each respective Commission.

The Commission on **Public Affairs** shall plan and execute programs designed to enhance the relationship between the public and the medical profession. The Commission shall have responsibility in the fields of industrial health, environmental health, medicine and religion, trauma, disaster medical care and national defense and other public matters.

The Commission on **Medical Economics. Third Party Medicine and Governmental Relations** shall keep close liaison and work with peer and utilization review mechanisms, insurance intermediaries and governmental agencies.

The Commission on **Continuing Education and Health Manpower** shall determine the character and scope of the scientific proceedings of the Association for each annual session as well as to make all arrangements for such annual sessions, subject to the instructions of the House of Delegates. The Commission shall also be responsible for the entire continuing education program of the Association, shall have all matters pertaining to hospitals referred to it, shall carry on all programs in the recruitment of health manpower in professional as well as in allied health fields and shall be responsible for programs in the rural health field.

The Commission on **Medical-Legal Affairs** shall investigate and study medical-legal matters affecting the practice of medicine, make recommendations to the Council and House of Delegates and also make certain that all Association members are kept informed of important developments in this field. The Commission also may work with similar groups formed by the State Bar Association on matters of joint interest and concern as well as with governmental and insurance agencies in this field.

The Commission on **Interspecialty Medicine** shall be composed of one representative of each statewide specialty group as recognized by the Association Council. The President of the Missouri State Medical Association shall appoint annually to the Commission a representative from each of the authorized groups as submitted to him by the specialty organization. In the event that such a nominee is not submitted to him by an organization, the Association President may designate a member of that specialty group to serve on the Commission.

The Commission shall be charged with the responsibility of reviewing organization problems with respect to scientific programs, socio-economic and legislative matters that affect their particular specialties; in addition the Commission shall have the responsibility for programs and activities in fields relating to disease and health services involving the citizens of our state and such other matters as the Council shall direct. Also, the Commission shall provide close liaison between the various specialty organizations and the Missouri State Medical Association.

Section 3. Fifty percent of a Committee or a Commission should be present at an official meeting to constitute a quorum.

Section 4. Special committees may be appointed by the President or the Council as circumstances may demand.

Chapter VIII. Dues and Assessments

Section 1. (a) The annual dues of this Association shall be $65.00, which shall be applicable to each active member of the Association beginning in 1970 and shall be levied per capita on the active members of the component societies; the per capita levy for junior members shall be one half of the per capita levy for active members; honor and associate members shall not be required to pay dues. Dues shall be payable on January 1 of the year for which they are levied.

(b) An assessment of $10.00 per year on each active member of the Association and $5.00 per year on each junior member shall be applicable for a three-year period beginning in 1969. The assessment shall be payable with the dues of the Association, and the monies collected therefrom shall be remitted to the Missouri State Medical Foundation.

Sec. 2. Three dollars of the annual dues shall be credited to the account of the Journal for each member's annual subscription. The remainder of the amount shall be credited to the general fund of the Association.

Sec. 3. The House of Delegates may, when in its judgment the best interest of the Association demands, recommend an assessment on each active member. Such assessment shall be levied only by consent of two thirds of the members of the House of Delegates present and voting. Funds obtained from such special assessments shall be allocated only for the purposes for which such assessment is levied and in accordance with substantiating budgets. Unexpended balances from such assessments must be reported to the House of Delegates for re-allocation.

Sec. 4. The secretary of each component society shall cause to be collected and remitted to the Treasurer of this Association the per capita levies. Any member whose name has not been reported for enrollment and whose dues have not been remitted to the Treasurer of this Association on or before March 1 shall stand suspended until his name is properly reported and his dues for the current year are paid. On December 31 of each year, members delinquent in payment of dues, and assessment if such has been made, or any part thereof shall, ipso facto, forfeit their memberships. No suspended member shall be eligible to register at an annual session.

Chapter IX. Rules of Conduct

The ethical principles governing the members of the American Medical Association shall govern members of this Association.

Chapter X. Rules of Order

The deliberations of this Association shall be conducted in accordance with parliamentary usage as defined in *Robert's Rules of Order.*

Chapter XI. County Societies

Section 1. All county societies now in affiliation with the State Association or those that may hereafter be organized in this state, which have adopted principles of organization not in conflict with this Constitution and By-laws shall, upon application to the Council, receive charters from this Association, provided that their Constitutions and By-laws shall have been submitted to the Council and received its approval.

Sec. 2. Only one component medical society shall be chartered in each county.

Sec. 3. Each county society shall judge of the qualifications of its members, subject to review and final decision by the Council of the State Association. Every reputable and legally qualified physician who does not practice, nor profess to practice sectarian medicine, and who resides or practices in the same county, who shall apply for membership on the prescribed form and subscribe for the Journal and pay the annual dues and assessments for the current year, shall be eligible for election to membership.

A member of a component society whose license has been revoked shall be dropped from membership automatically as of the date of revocation. The Council of the State Association shall have final authority to expel a member should a component county society fail to do so after being so requested by the Council.

The Council may upon request of a component society remit the state dues and assessment of a member who has become totally and permanently incapacitated through mental or physical disability and has been a member in good standing during the three consecutive years immediately preceding his disability; provided, that the component society shall remit the county society dues of such member.

The Council may, upon request of a component society, remit the state dues and assessments of a deserving member, found to fall within what is classified as a hardship case, during the period of said hardship until such time as the dues again become payable; provided that the component society shall remit the county society dues of such member.

The Council may, upon the request of a component society, waive the dues of any member in good standing for such a period as the member is serving in the Armed Forces of the United States of America, or similar service with any of the allies of the United States, and for six months thereafter.

A physician living near a county line may hold his membership in that county most convenient for him to attend, on permission of the component society in whose jurisdiction he resides.

Sec. 4. Any physician who may feel aggrieved by the action of the society of his county in suspending or expelling him shall have the right to appeal to the Council whose decision shall be final. A county society shall at all times be permitted to appeal or refer questions involving membership to the Council of the State Association for final determination.

Sec. 5. In hearing appeals the Council may admit oral or written evidence or both as in its judgment will most fairly present the facts.

Sec. 6. When a member in good standing in a component county society moves to another county in this state, he shall be given a written certificate of these facts by the secretary of his society, without cost, for transmission to the secretary of the society in the county to which he moves. Pending his acceptance or rejection by the society in the county to which he moves such member shall be considered to be in good standing in the county society from which he was certified and in the State Association to the end of the period for which his dues have been paid.

A member of a component society who moves to and engages in the practice of medicine at a location in another county in which there is a component society shall forfeit his membership in this Association and the Secretary shall remove his name from the roster of members of the Missouri State Medical Association unless within one year after such change of residence he becomes a member of the component society in the county to which he has moved.

Sec. 7. Each county society shall have general direction of the affairs of the profession in the county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county. Systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it includes every eligible physician in the county.

Sec. 8. At some meeting in advance of the Annual Session of this Association, each component county society shall elect one or more delegates and an equal number of alternates therefor to represent it in the House of Delegates of this Association, in accordance with Chapter III, Section 2 of these By-laws. The secretary of each county society shall send a list of such delegates and alternates to the Secretary of this Association at least sixty days before the Annual Session. Representation in the House of Delegates shall be contingent on compliance with the foregoing provisions.

Sec. 9. The secretary of each county society shall keep a roster of its members and, if practicable, a list of non-affiliated physicians, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this state, and such other information as may be deemed necessary by the Council. He shall send a copy of the program of each meeting to his district councilor and to the Secretary of the State Association.

Sec. 10. Any county component society, in a manner approved by the State Association, or the State Association with the consent of the county society or societies affected, may undertake, organize and put into effect plans for the medical care of indigent persons or indigent groups, and low income groups, by agreements with physicians, public officials or others and by the use of contributions, cooperative funds or other means; provided, however, that a free choice of the available and participating physicians in that territory shall be allowed to the patient and that all relationships, legal or otherwise, between the physician and the patient shall be and remain as though it were strictly an individual employment.

Chapter XII. Amendments

Section 1. These By-laws may be amended at any Annual Session by a two thirds vote of the delegates present and voting at that session, if the proposed amendment has been properly submitted to the House of Delegates and has laid on the table for one day.

Sec. 2. Upon the adoption of this Constitution and these By-laws all previous constitutions and by-laws are thereby repealed.

Owens, James L., 920 W. 47th 64112
Owens, Richard L., 9228 E. Highway 50 64133
Owens, Robert H., 6700 Troost 64131
Ozar, Milton B., 6700 Troost 64131
Padfield, Earl G., Jr., 4320 Wornall Rd. 64111
Pakula, Sidney F., 601 E. 63rd St. 64110
Pallett, Harold A., 4620 Nichols Parkway 64112
Parelman, Allen G., 601 E. 63rd St. 64110
Parker, Hubert M., Suite 435, 2929 Baltimore Ave. 64108
Parsons, Eugene O., 145th & State Line, Stilwell, Kan. 66085
Payne, William B., 6400 Prospect 64132
Pearson, Paul E., 31st and Wyandotte 64108
Peete, Don C., Professional Bldg. 64106
Penner, Stanley, 601 E. 63rd St. 64110
Pentecost, Richard L., 2200 McCoy St. 64108
Perll, Maurice F., 6700 Troost 64131
Perll, Rita D., 830 W. 61st Terr. 64113
Perry, Ralph, 6400 Prospect 64132
Peterson, Bonita J., 31st and Wyandotte Sts. 64108
Peterson, Carl M., 2701 E. 31st St. 64128
Peterson, George L., 315 Nichols Rd. 64112
Peterson, Milton C., 10519 Tropicana Circle, Sun City, Ariz. 85351
Peterson, Walter R., 2701 E. 31st St. 64128
Petry, Ezra L., 701 E. 63rd St. 64110
Pfuetze, Edwin L., Plaza Parkway Bldg. 64112
Pickard, Nicholas S., 6210 High Dr., Shawnee Mission, Kan. 66208
Pickens, Edgar E., U. S. Grant Hotel, San Diego, Calif. 92101
Pierron, John B., 6516 Linden Rd. 64113
Pinsker, Oscar T., 751 E. 63rd St. 64110
Piper, Donald K., 6700 Troost 64131
Pipkin, Garrett F., Argyle Bldg. 64106
Polk, George M., 10315 Corte Del Sol, Sun City, Ariz. 85351
Pollock, Leo H., 751 E. 63rd St. 64110
Pope, Charles H., Jr., 1509 W. Truman Rd., Independence 64050
Porter, Louis, 751 E. 63rd St. 64110
Potter, Lee G., 6904 Valley Rd. 64113
Potts, Donald A., 110 E. 23rd St., Independence 64050
Powell, Nelson E., Wornall Rd. & 44th 64111
Powers, John M., 3838 Blue Ridge Blvd., Independence 64052
Preston, Albert, Jr., 4320 Wornall Rd. 64111
Printz, Joseph H., 601 E. 63rd St. 64110
Printz, Otto J., 601 E. 63rd St. 64110
Pucci, Gregory L., 411 Nichols Rd. 64112
Pugh, Richard G., 1612 W. Truman Rd., Independence 64050
Puls, Jerry L., St. Joseph Hospital 64128
Quer, Erich A., 6400 Prospect 64132
Quistgard, Paul C., Star Route, Box 62, Hollister 65672
Rader, Ada B., 13414 Locust St. 64145
Raich, Robert A., 4320 Wornall Rd. 64111
Ramey, Ehret O., 4320 Wornall Rd. 64111
Ramos, John F., Jr., 3939 Prospect, 64130
Rannie, Paul R., 709 S. Fuller St., Independence 64052
Ratzlaff, Neal S., 6622 S. Oak Knoll Dr. Cincinnati, Ohio 45224
Rector, Joe L., Jr., St. Luke's Hosp. 64111
Reinhardt, George R., 6400 Prospect 64132
Reister, Dorothy D., 5201 W. 84th, Shawnee Mission, Kan. 66207
Reister, Philip D., 701 E. 63rd 64110
Reynolds, Clarence C., 3842 E. 63rd Terr. 64130
Rhoades, Arthur B., 111th & Antioch Rd., Lenexa, Kan. 66210
Richany, Shafik F., 24th & Cherry 64108
Richardson, Marion W., 2526 Prospect 64127
Riekhof, Paul L., 39th & Rainbow 66103
Riley, Joseph P., Jr., Parthenon, Ark. 72666
Riller, Lowell E., Professional Bldg. 64106
Rinck, William E., 5933 Rockhill Rd., 64110
Rippey, John H., Meyer Blvd. & Prospect 64132
Roberts, Grosvenor G., 6700 Troost 64131
Roberts, Harold M., Professional Bldg. 64106
Robinett, Wade V., 6700 Troost 64131
Robinson, Arthur W., 4320 Wornall Rd. 64111
Robinson, E. Kip, Professional Bldg. 64106
Robinson, G. Wilse, Jr., 2625 W. Pasco 64108
Robinson, William J., 601 E. 63rd St. 64110
Robison, James T., Jr., 4620 Nichols Parkway 64112
Rodgers, George H., 10041 El Monte Lane, Overland Park, Kan. 66207
Rodgers, Samuel U., 2701 E. 31st St. 64128
Rodriquez, Rolando A., 4643 Wyandotte 64112
Rogers, Robert L., 751 E. 63rd St. 64110
Rose, Charles W., 334 S. Van Brunt 64124
Rozen, Jay I., 6400 Prospect 64132
Rubin, Herbert M., 601 E. 63rd 64110
Rubin, Sidney, 701 E. 63rd 64110
Rubnitz, Leon H., 751 E. 63rd St. 64110
Rufe, John R., Bryant Bldg. 64106
Russell, James L., Suite 420, 2929 Baltimore Ave. 64108
Russell, Robert K., 63rd & Evanston, Raytown 64133
Sabates, Felix N., 6700 Troost 64131
Saferstein, A. Lester, 6859 Cherry 64131
Saladino, Anthony, 2009 W. 67th, Shawnee Mission, Kan. 66208
Samuelson, Edward A., 4620 Nichols Parkway 64112
Sanders, Donald C., 2625 W. Paseo 64108
Sanders, Harmon U., Jr., 2246 Rhode Island, Lawrence, Kan. 66044
Sanders, William F., 411 Nichols Rd. 64112
Sandow, Theodore L., Jr., 4320 Wornall Rd. 64111
Santoro, Carlos G., 1103 Westport Rd. 64111
Sasano, Joseph R., Jr., 1710 Independence Ave. 64106
Sauer, Gordon C., 6400 Prospect Ave. 64132
Saunders, Everett L., 121 W. Lexington, Independence 64050
Scales, Margaret B., 6601 Rockhill Rd., 64110
Schaerrer, William C., 4320 Wornall Rd. 64111
Schiffmacher, Jack E., Professional Bldg. 64106
Schillie, Gene A., 6400 Prospect 64132
Schlozman, Daniel L., 601 E. 63rd 64110
Schmidt, C. Robert, 6400 Prospect 64132
Schoolman, Arnold, 6700 Troost 64131
Schottman, Gerhard W., Jr., St. Luke's Hosp. 64111
Schutz, Carl B., 841 San Pablo Dr., San Marcos, Calif. 92069
Schutz, Richard B., 411 Nichols Rd. 64112
Seely, Clark W., 1710 Independence Ave. 64106
Sells, Kenneth J., Suite 310, 2929 Baltimore Ave. 64108
Shalet, Malcolm F., 425 E. 63rd St. 64110
Shapiro, Lazare M., 701 E. 63rd St. 64110
Sheahon, John A., 6706 Raytown Rd. 64133
Shechter, Nathan. 601 E. 63rd 64110
Shelden, Russell D., 6400 Prospect 64132
Shifrin, Alexander, 6700 Troost 64131
Shireman, Kenneth L., 6518 Independence Ave. 64125
Shockley, Clarence J., 5927 McGee 64113
Shofstall, Charles K., 229 Ward Parkway 64112
Shopfner, Charles E., 1710 Independence 64106
Shuey, Herbert H., 3 E. Gregory 64114
Shypper, Moses J., 13527 Crewe St., Van Nuys, Calif. 91405
Siegel, Carl. 601 E. 12th 64106
Simmons, Donald D., 600 E. 22nd St. 64108
Simon, Sanford, 601 E. 63rd St. 64110
Singleton, John M., 111, 411 Nichols Rd. 64112
Skillman, Robert K., 4320 Wornall Rd. 64111
Skinner, John T., Bryant Bldg. 64106
Slankard, Edward, 4320 Wornall Rd. 64111
Slentz, Edwin L., 4320 Wornall Rd. 64111
Slentz, William A., 4320 Wornall Rd. 64111
Slickman, R. A., 6700 Troost 64131
Smith, Arthur B., 6400 Prospect Ave. 64132
Smith, H. Eugene, 411 Nichols Rd. 64112
Smith, Ira T., 6400 Prospect 64132
Smith, James M., 7924 Paseo 64131
Smith, Katherine W., 1710 Independence Ave. 64106
Smith, O. D., 6300 Woodson, Mission, Kan. 66202
Smith, Wallace B., 10901 Winner Rd., Independence 64052
Smull, Ned W., 2318 W. 70th Terr. Shawnee Mission, Kan. 66208
Sneid, Philip, 701 E. 63rd St. 64110
Snider, Wilbur R., 10901 Winner Rd., Independence 64052
Spafford, Allen L., 315 Nichols Rd. 64112
Spalding, Wilber B., Jr., 1102 Grand 64106
Spencer, Donald M., 4240 Blue Ridge Rlvd. 64133
Spies, Barbara J., 11201 Colorado 64137
Spurny, Otto M., 425 E. 63rd St. 64110
Stacey, Wallace R., 2116 S. Sterling Ave., Independence 64052
Staggs, William A., Suite 335, 2929 Baltimore Ave. 64108
Staley, Harry R., Bryant Bldg. 64106
Statland, Harry, 601 E. 63rd St. 64110
Statland, Morris, 601 E. 63rd St. 64110
Steffen, Lawrence F., 4706 Broadway 64112
Stegman, Elmer G., 6137 Blue Ridge Blvd., Raytown 64133
Stein, Joseph W., 1103 Grand Ave., 64106
Stelle, Charles W., 4304 W. 82nd Terr., Prairie Village, Kan. 66208
Stelmach, Walter J., 6700 Troost 64131
Stephens, Jack D., 751 E. 63rd 64110
Stockton, Raymond W., 4320 Wornall Rd. 64111
Stockwell, A. Lloyd, Professional Bldg. 64106
Stotts, Charles S., R.R. 4, Fredonia, Kan. 66736
Stratemeier, Edward H., 31st & Wyandotte 64108
Strauss, Carl F., 8300 Troost 64131
Stribling, Thomas L., 2116 S. Sterling Ave., Independence 64052
Suddarth, Sterling B., 4240 Blue Ridge Blvd. 64133
Summers, Caldwell B., 7312 Jarboe, 64114
Sutton, Richard L., Jr., 411 Nichols Rd. 64112
Swisher, Robert C., 425 E. 63rd St. 64110
Switzer, Clyde, 8100 W. 54th Terr., Overland Park, Kan. 66202
Sword, Richard O., 800 W. 47th St. 64110
Szabados, Ernest D., 1612 W. Truman Rd., Independence 64050
Tamblyn, Claire L., 6400 Prospect 64132
Tarson, Solomon S., 5511 W. 85th St., Overland Park, Kan. 66207
Tasker, Charles B., 31st & Wyandotte 64108
Teare, Max E., 600 E. 22nd St. 64108
Terrill, Robert S., 4706 Broadway, 64112
Tesson, James A., 906 Grand Ave. 64106
Theel, Otto W., Jr., 4301 Main 64111
Thiele, George H., 4545 Wornall Rd. 64111
Thomas, Christopher Y., 4320 Wornall Rd. 64111
Thompson, Charles L., 4320 Wornall Rd. 64111
Tice, Wayne K., 1509 W. Truman Rd., Independence 64050
Totten, Frederick E., 6700 Troost 64131
Toubes, Daniel B., 8300 Troost 64131
Trimble, George X., 101 Memorial Dr. 64108
Troeh, Melvin R., 10901 Winner Rd., Independence 64052
Trowbridge, Barnard C., 415 E. 63rd St. 64110
Trowbridge, Ellsworth H., Jr., 411 Nichols Rd. 64112
Turner, Ronald M., 10901 Winner Rd., Independence 64052
Tutera, Dominic F., Plaza Medical Bldg. 64112
Tuthill, Herbert, 1037 W. 71st Terr. 64114
Twin, Edward J., 6601 Rockhill Rd. 64131
Twyman, Richard A., 4320 Wornall Rd. 64111
Underwood, Dick H., 6700 Troost 64131
Underwood, Johnson, Jr., Professional Bldg. 64106
Underwood, Ross H., 5522 Aberdeen Rd., Shawnee Mission, Kan. 66205
Unger, Harold, 601 E. 63rd 64110
Upsher, Albert E., Box 2778, 64106
Valins, Eugene, 751 E. 63rd St. 64110
Van Biber, James T., 1612 W. Truman Rd., Independence 64050
Van Buskirk, Terrance E., 5246 St. John 64123
Van Buskirk, William C., 6700 Troost 64131
Vaughn, James W., 2625 W. Paseo 64108
Vermeire, David A., 1735 Baltimore 64108
Vidals, Guillermo, 7540 Troost 64131
Vilmer, Charles, Professional Bldg. 64106
Vincent, Jack C., 8300 Troost 64131
Virden, Herbert H., 6700 Troost 64131
Viril, Leonardo C., 4706 Broadway 64112
Vogel, Arthur P., 6700 Troost 64131
Volk, George E., Langley AFB, Hampton, Va. 23365
Voth, Harold W., 4320 Wornall Rd. 64111
Wade, Frederick E., Professional Bldg. 64106
Wagner, Paul J., Suite 350, 2929 Baltimore Ave. 64108
Wakefield, Franklin H., 8352 Overbrook Rd., Leawood, Kan. 66206

Walker, James C., 2727 Main 64108
Walker, John W., 6400 Prospect 64132
Walker, Orville C., Jr., 10901 Winner Rd. Independence 64052
Wall, Harry C., 751 E. 63rd St. 64110
Wall, Leonard A., 4320 Wornall Rd. 64111
Waltz, Charles A., 534 Blue Ridge Tower 64133
Waltz, James R., 4240 Blue Ridge Blvd. 64133
Watson, Ethel, 1033 W. Maple Ave., Independence 64050
Waxman, David, 4840 Prospect 64130
Waxman, Herbert J., 8300 Troost 64131
Waxman, Jane Z., 4840 Prospect 64130
Webb, Harry E., 330 W. 47th St. 64112
Weidmaier, Edward J., 600 E. 22nd 64108
Weiford, Edward C., 4320 Wornall Rd. 64111
Weir, Robert K., 4240 Blue Ridge Blvd. 64133
Weller, Lynn D., Jr., 6700 Troost 64131
Wells, James A., 600 E. 45th St. 64110
Wells, John H., 3325 Prospect 64128
Weltscheff, Christo A., 1800 Blue Ridge Ext. 64146
Wenner, Herbert A., 1710 Independence Ave. 64106
Wertzberger, John J., 4240 Blue Ridge Blvd. 64133
Wheeler, Charles B., 4320 Wornall Rd. 64111
Wheeler, John H., 4320 Wornall Rd. 64111
White, Charles H., 6700 Troost 64131
White, George A., 3416 Paseo Blvd. 64109
White, James S., 751 E. 63rd 64110
White, Stoughton F., 4320 Wornall Rd. 64111
White, William E., 6400 Prospect 64132
Whiteman, John R., Suite 545, 2929 Baltimore Ave. 64108
Whitman, Doyle C., 18 E. 11th St. 64106
Whitmore, J. Stewart, Suite 340, 2929 Baltimore Ave. 64108
Whittaker, Charles K., 4320 Wornall Rd. 64111
Wicks, Edwin O., 414 E. 12th 64106
Wien, Irving A., 1103 Grand 64106
Wilber, Robert D., 4320 Wornall Rd. 64111
Wilhelm, Warren F., 6400 Prospect 64132
Wilkinson, Charles B., 4604 Benton Blvd. 64130
Wilkinson, Everett A., 6400 Prospect 64132
Williams, Frank R., 4320 Wornall Rd. 64111
Williams, George P., 10604 Blue Ridge Ext. 64134
Williams, Joseph C., Jr., 6400 Prospect 64132
Williams, Roland D., 305 W. 43rd St. 64111
Williams, Starks J., 5600 Agnes 64130
Williams, Thomas A., Box 1169, 64141
Williamson, George L., Professional Bldg. 64106
Willits, Lyle G., Professional Bldg. 64106
Willoughby, James W., 1125 Grand 64106
Willoughby, Jean B., 6400 Prospect 64132
Wilson, Clifford C., 4320 Wornall Rd. 64111
Wilson, Hester J., Plaza Time Bldg. 64112
Winer, Bernard A., 751 E. 63rd 64110
Winer, Herbert J., 751 E. 63rd St. 64110
Winer, Nathaniel, 4949 Rockhill Rd. 64110
Winkelman, Esther B., 6400 Prospect 64132
Winston, Bernard H., 601 E. 63rd St. 64110
Wise, George W., 1710 Independence Ave. 64106
Withers, Orval R., Plaza Parkway Bldg. 64112
Wolf, Jack W., 425 E. 63rd St. 64110
Woodman, Grey M., 2200 McCoy St. 64108
Woods, Harold V., 1405 W. 40 Hwy., Blue Springs 64015
Woods, S. Dwight, 4320 Wornall Rd. 64111
Woods, Walton C., Medical Dept. TWA, Midcontinent Intl. Airport 64108
Woodward, William W., 4240 Blue Ridge Blvd. 64133
Workman, Charles E., Professional Bldg. 64106
Wortmann, Robert F., 6400 Prospect 64132
Wright, R. Paul, Professional Bldg. 64106
Wu, William Q., 6700 Troost 64131
Wurster, Jerry B., 4320 Wornall Rd. 64111
Wurster, W. Joel, 305 W. 43rd St. 64111
Yohe, Ruth M., 1710 Independence Ave. 64106
Youll, Donald V., 6700 Troost 64131
Youmans, Ronald A., 415 E. 63rd St. 64110
Young, James E., 716 Medical Plaza 64111
Young, Jesse W., 1401 Southwest Blvd., Kansas City, Kan. 66103
Young, Paul R., 2316 E. Meyer Blvd. 64132
Youngblood, James P., 4620 Nichols Parkway 64112
Zacharias, David L., St. Joseph Hosp., Linwood Blvd. at Prospect 64128
Zahony, Ivan, Suite 350, 2929 Baltimore Ave. 64108
Zellermayer, Jacob, 701 E. 63rd St. 64110
Zoller, David D., 101 Memorial Dr. 64108

JASPER COUNTY MEDICAL SOCIETY
(Joplin)

Adams, Robert B., Jr., Medical Arts Bldg. 64801
Allen, David O., 2525 S. Jackson 64803
Barnett, Norman H., 25th & Jackson 64803
Birsner, Frank H., 1717 River, Carthage 64836
Bladow, Terrence C., Medical Arts Bldg. 64801
Burch, John E., Medical Arts Bldg. 64801
Butler, Patrick L., 219 Sergent 64801
Carnes, Victor M., Medical Arts Bldg. 64801
Chase, Ned B., Jr., 114-B Medical Arts Bldg. 64801
Chesney, George W., 25th & Jackson 64803
Cohle, Richard R., Carthage 64836
Craig, Irwin T., 25th & Jackson 64803
Crawford, Archie L., Frisco Bldg. 64801
Crispell, Lawrence S. 6th & Pearl 64801
Davis, Charles S., 301 Medical Arts Bldg. 64801
DeTar, Burleigh E., 410 Jackson 64801
Eliscu, Juliette M., 2002 Jackson 64803
Esther, John R., Ferguson's Med. Laboratories 64801
Ferguson, Lewis H., Jr., 604 Plaza Dr. 64803
Ferguson, Ralph L., Medical Arts Bldg. 64801
Ferguson, Robert M., 110 N. Webb, Webb City 64870
Fritsch, Andrew J., 2920 Pearl 64801
Gaston, Samuel Lee, 101 Medical Arts Bldg. 64801
Grubb, Paul H., 2509 Jackson 64803
Hall, Marvin F., Medical Arts Bldg. 64801
Hallaba, M. A. S., 25th & Jackson 64801
Hamilton, Eugene H., Medical Arts Bldg. 64801
Holtzman, Samuel, Medical Arts Bldg. 64801
Hornback, Edward R., 2841 E. 14th 64801
Hurst, Wilfred W., Medical Arts Bldg. 64801
Isbell, Charles H., Carthage 64836
Jeans, Virgil, Medical Arts Bldg. 64801
Kirschman, Robert E., 2529 Jackson 64803
Koehler, John W., Medical Arts Bldg. 64801
Kuhn, John R., Jr., Frisco Bldg. 64801
Laney, Ronald L., P. O. Box 434, Carlsbad, Calif. 92008
Longenecker, Joe L., 2503 Jackson 64803
McKee, Howard B., 2509 Jackson 64803
McPike, Lloyd H., Frisco Bldg. 64801
Mack, Mary L. (Address Unknown)
MacLaughlin, James C., Medical Arts Bldg. 64801
Maddox, John D., 6th & Pearl 64801
O'Brien, James A., 3901 Hearnes Blvd. 64801
Paddock, Charles S., Medical Arts Bldg. 64801
Papp, Sandor D., Medical Arts Bldg. 64801
Patterson, Donald R., 2509 Jackson 64803
Patterson, Grover S., 510 S. Main, Carthage 64836
Pence, F. Wendell, 612 S. Main, Carthage 64836
Poor, Carl W., Rt. 1, Box 302, Neosho 64850
Post, Winfred L., 2401 Jackson 64801
Powell, Robert G., 2329 Jackson 64803
Royce, James J., Sarcoxie 64862
Schmidt, Herbert J., Medical Arts Bldg. 64801
Schoeberl, Cletus B., Medical Arts Bldg. 64801
Schulte, Gregory A., 2125 Jackson 64803
Scorse, Sidney W., 2509 Jackson 64803
Shanahan, Mary P., 2001 Sergeant Ave. 64801
Smith, Roland T., Medical Arts Bldg. 64801
Smith, William R., 211 E. Chestnut, Carthage 64836
Vinson, Harold A., 107 Medical Arts Bldg. 64801
Walker, Paul W., Medical Arts Bldg. 64801
Whitten, M. Foster, 616 W. Centennial, Carthage 64836
Wieman, Harry K., Medical Arts Bldg. 64801
Wilcox, Ruth E., 614a Joplin 64801
Wilson, Alice H., 1923 Sergeant 64803
Wood, George H., 1515 Hazel, Carthage 64836
Wooldridge, Bart F., Medical Arts Bldg. 64801
Young, Calvin C., Jr., Medical Arts Bldg. 64801

JEFFERSON COUNTY MEDICAL SOCIETY

Allbee, Roger H., Crystal City 63019
Blank, Michael K., De Soto 63020
Bolgar, Bertalan, Festus 63028
Carroll, Richard C., Crystal City 63019
Carron, Joseph F., Arnold 63010
Deles, Vincente D., Crystal City 63019
Donnell, Harold E., Desoto 63020
Donnell, Robert H., Crystal City 63019
Donnell, Thomas A., Desoto 63020
Edwards, Waldo B., 135 W. Adams Ave., Kirkwood 63122
Glasgow, David S., Crystal City 63019
Ibaviosa, Alfred C., Crystal City 63019
Judge, Walter T., Crystal City 63019
Kozal, Francis L., Crystal City 63019
McKinstry, Karl V., Desoto 63020
Mayfield, James L., Crystal City 63019
Myers, Ivan T., 525 Jeffco Blvd., Arnold 63010
Rice, Carl E., Hillsboro 63050
Romero, Richard N., Crystal City 63019
Rutledge, John F., Festus 63028
Senn, Emmett J., Herculaneum 63048
Yoskit, Harry, Festus 63028

JOHNSON COUNTY MEDICAL SOCIETY
(Warrensburg 64093)

Cada, Edward G., Warrensburg
Cooper, R. Lee, Warrensburg
Damron, Oscar H., Warrensburg
Folkner, A. L., Warrensburg
Gonzalez, M. Garza, Warrensburg
Grove, Gulph W., Knobnoster 65336
Hanna, Hugh A., Warrensburg
Harkness, Harry, Warrensburg
Johnson, Charles S., Warrensburg
Jones, Keith D., Warrensburg
Lederer, Charles M., Warrensburg
Maxson, T. Reed, Warrensburg
Reynolds, M. Wayne, Rt. 4, Box 89, Lee's Summit 64063

KNOX COUNTY
(North Central Counties Medical Society)

LACLEDE COUNTY
(Mid-Missouri County Medical Society)

LAFAYETTE-RAY COUNTY MEDICAL SOCIETY

Baldwin, Theodore R., 1236 Jesse James Rd., Excelsior Springs 64024
Best, Robert, Higginsville 64037
Boydston, Catherine, Odessa 64076
Boydston, W. Wayne, Odessa 64076
Brady, Hugh S., Concordia 64020
Brasher, Ben H., Lexington 64067
Cook, Thomas B., Richmond 64085
Cope, Joseph S., Lexington 64067
Crayton, Billy G., Waverly 64096
Crozier, Franklin A., Richmond 64085
Davault, George K., Richmond 64085
Fulkerson, Wilbur E., Higginsville 64037
Goldberg, Isadore E., Braymer 64624
Huber, K. Herbert, Richmond 64085
Kelling, Jordan, Waverly 64096
Koppenbrink, Walter E., Jr., Higginsville 64037
LaHue, William C., 65 Bahama Circle, Tampa, Fla. 33606
McFadden, Gene A., Waverly 64096
Pavlu, Robert R., Waverly 64096
Riley, Charles T., Richmond 64085
Ward, Joe, Lexington 64067
Williams, John W., Oak Grove 64075

LAWRENCE COUNTY
(Ozarks Medical Society)

LEWIS-CLARK-SCOTLAND COUNTIES MEDICAL SOCIETIES

Davis, Landis Y., Canton 63435
Gilfillan, Earl E., Memphis 63555

LINCOLN COUNTY
(St. Charles-Lincoln Medical Society)

LINN COUNTY
(Grand River Medical Society)

LIVINGSTON COUNTY
(Grand River Medical Society

McDONALD COUNTY
(Ozarks Medical Society)

MACON COUNTY
(Chariton-Macon-Monroe-Randolph County Medical Society)

MADISON COUNTY
(Mineral Area County Medical Society)

MARIES COUNTY
(Mid-Missouri County Medical Society)

MARION-RALLS-SHELBY COUNTY MEDICAL SOCIETY
(Hannibal 63401)

Archer, Perry C., Shelbyville 63469
Bach, Lysle M., 1734 Market St.
Burns, Francis R., Box 311
Clisham, John F., B & L Bldg.
Fischer, Thomas J., 2910 St. Mary's
Foreman, Phillip B., Box 311
Francka, W. F., 603 Country Club Dr.
Grant, Albert J., B. & L. Bldg.
Greene, Harry L., Holmes Bldg.
Hall, Stanley G., 9 Fair Oaks
Hamlin, Wyeth, Box 311
Lanning, Robert J., 115 N. 5th St.
Latimer, Walter N. A., 115 N. 5th
Lichty, Charles A., Shelbina 63468
Lucke, Eugene M., 4000 McMasters Ave.
Mann, James K., 4074 Hillside Dr.
Murphy, Bernard L., 2000 Crescent Dr.
Pena-Ramos, Abelardo, B&L Bldg.
Plowman, Edward M., B & L Bldg.
Rapp, Earl L., Box 311
Roller, Merrill J., 2910 St. Mary's
Steele, James C., Jr., Box 311
Walterscheid, John H., 1209 Broadway
Well, Julius W., Palmyra 63461

MERCER COUNTY
(Grand River Medical Society

MID-MISSOURI COUNTY MEDICAL SOCIETY
(Phelps-Crawford-Dent-Pulaski-Maries-Laclede Counties)

Andreassen, Dimil F., Rolla 65401
Bass, Billy J., Salem 65560
Baumann, Albert R., Steelville 65565
Bealer, Louis A., Lebanon 65536
Beene, Thomas K., Lebanon 65536
Butts, James D., Rolla 65401
Carnell, B. M., Camdenton 65020
Carrington, Howard W., Lebanon 65536
Cortez, Willie S., Lebanon 65536
Dierker, H. D., Lebanon 65536
Drake, Avery A., Rolla 65401
Elders, Frank A., Jr., Cuba 65453
Feind, Earl E., Rolla 65401
Froelich, R. W., Lebanon 65536
Garrison, T. W., Camdenton 65020
Hammler, Christiana V., St. James 65559
Hart, Martin M., Salem 65560
Hite, Dennis E., Lebanon 65536
Holley, Donald B., Camdenton 65020
Kays, Kenneth M., 807 Stadium Rd., Columbia 65201
Lytle, William R., Rolla 65401
Miller, Clyde S., Waynesville 65583
Mitchell, Roy E., Salem 65560
Myers, James M., Rolla 65401
Porter, Jim C., Lebanon 65536
Riffel, Gordon W., Bourbon 65441
Russell, Barbara E., Rolla 65401
Smith, Ted P., Edgar Star Route 65401
Stricker, Emil A., St. James 65559
Young, Robert B., Rolla 65401

MILLER COUNTY MEDICAL SOCIETY

Buehler, Carl T., Jr., Eldon 65026
Shelton, Edward O., Eldon 65026

MINERAL AREA COUNTY MEDICAL SOCIETY
(St. Francois-Iron-Madison-Washington-Reynolds Counties)

Appleberry, Charles H., Rivermines 63668
Brennan, John A., 7750 Kingsbury, St. Louis 63105
Bugg, Andrew F., 312 E. 3rd St., Lordsburg, N. M. 88045
Burcham, Tom R., Jr., Farmington 63640
Carleton, Charles E., Jr., Farmington 63640
Chastain, Charles W., Farmington 63640
Cresswell, George F., Potosi 63664
Crouch, F. Richard, Farmington 63640
Dennis, W. Paul, Flat River 63601
Dettmer, Robert F., Ironton 63650
Farmer, Norma D., Farmington 63640
Ford, William, Farmington 63640
Foster, Jack L., Desloge 63601
Fraser, Richard A., Bonne Terre 63628
Gaskins, Charles W., Ironton 63650
Grossman, Marvin, Fredericktown 63645
Hardy, Stanton L., Desloge 63601
Harland, Robert E., Ironton 63650
Hoctor, Emmett F., Farmington 63640
Huckstep, Robert A., Farmington 63640
Hunt, John W., Jr., Farmington 63640
Karraker, Alvan G., Farmington 63640
Mainz, David L., Fredericktown 63645
Mardini, Edward E., Bonne Terre 63628
Menne, Marvin C., Ironton 63650
Mullen, Jack, Bonne Terre 63628
Newcomb, Arthur D., 115 S. Wood Ave., Fredericktown 63645
Oliver, George A., Farmington 63640
Osborn, Retus W., III, Farmington 63640
Slaughter, Shelby C., Fredericktown 63645
Taylor, Van W., Bonne Terre 63628
Turner, Kirby L., Potosi 63664
Vester, James E., Bismarck 63624
Watkins, George L., Jr., Farmington 63640

MISSISSIPPI COUNTY
(SEMO County Medical Society)

MONITEAU COUNTY MEDICAL SOCIETY
(California 65018)

Fulks, Richard B., California
Gallagher, Lionel M., California
Latham, Kenyon S., California

MONROE COUNTY
(Chariton-Macon-Monroe-Randolph County Medical Society)

MONTGOMERY COUNTY MEDICAL SOCIETY

Andersen, Elmer J. T., Montgomery City 63361
Byland, Samuel J., Wellsville 63384
Helm, James O., New Florence 63363
Steinbeck, Herbert F., Route 2, Wilmington, Ill. 60481

MORGAN COUNTY MEDICAL SOCIETY
(Versailles 65084)

Gunn, Jack, Versailles
Hall, C. Robert, Versailles
Kauffman, Ruth, Versailles
Lyle, Robert R., Versailles
Washburn, J. Loren, Versailles

NEW MADRID COUNTY
(SEMO County Medical Society)

NEWTON COUNTY
(Ozarks Medical Society)

NORTH CENTRAL COUNTIES MEDICAL SOCIETY
(Adair-Schuyler-Knox-Sullivan-Putnam Counties)
(Kirksville 63501)

Buben, Robert W., Kirksville
English, Milton T., Jr., Kirksville
Freeman, Spencer L., Kirksville
Grim, Edward M., Kirksville
Hasselblad, Oliver W., 297 Park Ave., South, New York, N. Y. 10011
Hilton, Paul E., Kirksville
Isom, Waldo B., Knox City 63446
Stickler, Ralph O., Kirksville
Tarvydas, Francis, Edina 63537

NORTHWEST MISSOURI MEDICAL SOCIETY
(Nodaway-Holt-Achison-Gentry-Worth Counties)

Bare, Edward F., Tarkio 64491
Bauman, Henry C., Maryville 64468
Blacklock, David E., King City 64463
Byland, Benjamin F., Maryville 64468
Carlin, Albert L., Stanberry 64489
Carpenter, Wallace, Rock Port 64482
Dunshee, Robert E., Maryville 64468
Humphrey, James, Mound City 64470
Imes, Elvin D., Maryville 64468
Jackson, William R., Maryville 64468
Leach, Jon R., Maryville 64468
Matteson, Frank B., Grant City 64456
Morgan, Troy O., Jr., Albany 64402
Niedermeyer, Edward L., Tarkio 64491
Parsons, Bernie, Albany 64402
Wanamaker, John M., Rock Port 64482
Wempe, G. Raymond, Maryville 64468

OREGON COUNTY
(South Central Counties Medical Society)

OSAGE COUNTY
(Unorganized)

OZARK COUNTY
(South Central Counties Medical Society)

OZARKS MEDICAL SOCIETY
(Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald Counties)

Anderson, Paul B., Neosho 64850
Betz, Richard J., Neosho 64850
Blankenship, George W., Neosho 64850
Bowman, Melvin C., Neosho 64850
Brasher, Charles A., Mt. Vernon 65712
Brown, Frederick B., Aurora 65605
Capetti, Alex P., Crane 65633
Carter, James R., Neosho 64850
Christianson, Charles S., Mt. Vernon 65712
Coffman, Esther E. L., 1514 13th North, Lakeworth, Fla. 33460
Crain, James W., Branson 65616
Dabbs, Wilbur D., Neosho 64850
Donley, Robert R., Monett 65708
Edwards, Francis L., Monett 65708
Evans, Harry T., Branson 65616
Galinsky, Leon, Mt. Vernon 65712
Gardner, Joseph W., Reeds Spring 65737
Gillispie, Roy, Branson 65616
Glass, William J., Jr., Monett 65708
Glover, Kenneth, Mt. Vernon 65712
Graves, Arthur J., Mt. Vernon 65712
Hamilton, William P., Aurora 65605
Hellweg, Charles E., Mt. Vernon 65712
Huntington, Ione, Mt. Vernon 65712
Kelsey, Kenneth L., Aurora 65605
Kenney, Roy E., Neosho 64850
Kerr, Frank T., Monett 65708
Lentz, Harold C., Neosho 64850
Magness, William C., Branson 65616
Mars, Hartley F., Forsyth 65653
Merideth, Mary Jane, Cassville 65625
Meyers, Rosellen C., 7552 Buckingham Dr., St. Louis 63105
Moore, Allen H., Jr., Branson 65616
Morrison, T. A., Aurora 65605
Olive, George C., Neosho 64850
Reynolds, James R., Neosho 64850
Roper, Stanley D., Ozark 65721
Schultz, Loraine E., Branson 65616
Shumate, L. St. Clair, Reeds Spring 65737
Spears, Charles A., Branson 65616
Sweany, Henry C., 1502 W. Broadway, Columbia 65201
Taylor, Leo T., Neosho 64850
Wommack, Fred L., Crane 65633

PEMISCOT COUNTY MEDICAL SOCIETY

Aquino, Philip J., Caruthersville 63830
Bernard, J. W., Caruthersville 63830
Cain, Charles F., Caruthersville 63830
Cook, Oliver W., Caruthersville 63830
Cooper, Lawrence E., 1274 Hanton, Fort Myers, Fla. 33901
Duckworth, Gordon Lee, Jr., Hayti 63851
Grable, James, Portageville 63873
Gubin, Alan S., Caruthersville 63830
McCoy, Warren R., Caruthersville 63830
McKaskle, Clarence W., Caruthersville 63830
Painter, Andrew E., Portageville 63873
Painter, Lattie B., Jr., Portageville 63873
Shirey, Arnold G., Hayti 63851

PERRY-STE. GENEVIEVE COUNTIES MEDICAL SOCIETY

Carron, Oscar A., Perryville 63775
DeGenova, Gerard H., Ste. Genevieve 63670
Fairchild, James F., Perryville 63775
Feltz, Lawrence W., Perryville 63775
Fischer, Theodore, Altenburg 63732
Lanning, Richard C., Ste. Genevieve 63670
Lutkewitte, Joseph F., Ste. Genevieve 63670
McDermott, Alfred E., Perryville 63775
Miller, Oliver J., 1972 Bend Rd., Cape Girardeau 63701
Utterman, William F., Perryville 63775

PETTIS COUNTY MEDICAL SOCIETY
(Sedalia 65301)

Bess, William E., 914 S. Beacon
Block, J. E., 1609 S. Limit

Boger, James W., 500 W. 16th St.
Brady, Charles H., Gordon Bldg.
Braverman, Elliot M., 1501 S. Grand Ave.
Brazos, John C., Smithton 65350
Burkenholder, James N., 2002 S. Kentucky
Campbell, Albert J., Jr., 625 E. 13th
Daum, Harold F., Bothwell Memorial Hosp.
Edmonds, Robert W., 1718 S. Ingram
Edwards, David R., 700 S. Limit
Eldenburg, Donald, 700 S. Limit
Fisher, Stanley D., Sedalia
Glass, Robert L., 720 S. Beacon
Gonser, Karl B., 101 S. Ohio
Hopkins, Thomas J., 700 S. Limit
Hopkins, T. Spencer, 1609 S. Limit
Lamy, John E., 509 W. Broadway
Lowe, Alvin L., 621 W. 16th St.
Maddox, Albert R., 116 W. Main
Owens, John H., Bothwell Memorial Hosp.
Proctor, Donald C., 700 S. Limit
Rhodes, Euhlan L., Warsaw 65355
Roberts, Paul A., Sweet Springs 65351
Rodeman, John M., Gordon Bldg.
Stauffacher, C. Gordon, 700 S. Limit
Stewart, Robert H., Bothwell Memorial Hosp.
Stockwood, Robert C., 1718 S. Ingram
Van Dyke, Elmer H., 1718 S. Ingram
Walter, Archie L., 500 W. 16th St.
Worley, Charles A., Sweet Springs 65351

PHELPS COUNTY
(Mid-Missouri County Medical Society)

PIKE COUNTY MEDICAL SOCIETY

Cancelada, Juan, Farmington 63640
Christensen, Roger F., Louisiana 63353
Day, John K., 1012 Maplewood, Columbia 65201
Jackson, Edward K., Clarksville 63336
Lewellen, Charles H., Louisiana 63353
Martin, W. Joe, Louisiana 63353
Middleton, John W., Louisiana 63353
Miles, Glenn E., Louisiana 63353
Stuerman, Lawrence G., Louisiana 63353
Wilcoxen, William B., Bowling Green 63334

PLATTE COUNTY MEDICAL SOCIETY

Allen, S. Lloyd, 3809 N.W. 62 Terr., Kansas City 64119
Kimball, Ireland W., 5621 Valley Rd., Kansas City 64151
Robinson, John A., Edgerton 64444
Sincox, Charles H., Platte City 64079
Tharp, Judith L., Platte City 64079
Thurman, Hill C., Parkville 64152
Vescovo, Paul C., 4106 Vivion Rd., Kansas City 64119
Wolfram, Philip H., Platte City 64079

POLK COUNTY
(Dallas-Hickory-Polk-Dade County Medical Society)

PULASKI COUNTY
(Mid-Missouri County Medical Society)

PUTNAM COUNTY
(North Central Counties Medical Society)

RALLS COUNTY
(Marion-Ralls-Shelby County Medical Society)

RANDOLPH COUNTY
(Chariton-Macon-Monroe-Randolph County Medical Society)

RAY COUNTY
(Lafayctte-Ray County Medical Society)

REYNOLDS COUNTY
(Mineral Area County Medical Society)

RIPLEY COUNTY
(Butler-Wayne-Riplcy County Medical Society)

ST. CHARLES COUNTY
(St. Charles-Lincoln County Medical Society)
(St. Charles 63301)

Baird, Keim L., 2850 W. Clay St.
Barnette, Eugene, 2850 W. Clay St.
Beis, Louis D., 113 A-Okay Dr.
Berry, Paul T., 370 E. Wood, Troy 63379
Canty, Eugene J., 114 N. Main
Clever, Henry W., Jr., 1301 Boonslick Rd.
Commerford, John F., 1301 Boonslick Rd.
Connelly, Michael W., 805 Paddock Dr., Florissant 63033
Cottey, John H., 222 S. Second St.
Creech, Joseph C., Troy 63379
Crider, Russell J., 222 S. 2nd St.
Damron, Edward O., Elsberry 63343
Del Pizzo, Ferdinand, Jr., 1301 Boonslick Rd.
Duling, Gerald J., 2850 W. Clay St.
DuMontier, R. J., O'Fallon 63366
Felder, James P., 449 Nantucket Dr.
Fleming, Robert J., 120 Clay
Goldkamp, John D., 2850 W. Clay St.
Gore, Glenn L., 2414 W. Clay St.
Hammes, Roman E., 2850 W. Clay St.
Hetlage, Louis P., Troy 63379
Kamada, Tsutomu, 115 W. Pitman, O'Fallon 63366
Keller, Robert M., 704 W. Old Hwy. 40, Wentzville 63385
Kister, George E., 302 S. 2nd St.
Linsenmeyer, Charles M., 117 First Capital Dr.
MeQueen, Samuel, 100 No. Euclid, St. Louis 63108
Muenster, Vineent P., 2850 W. Clay St.
Neubeiser, Ben L., 2nd & Clay Sts.
Perna, Vincent P., 100 N. Euclid Ave. St. Louis 63108
Poggemeier, William H., Jr., 302 S. 2nd St.
Ridzon, Thomas J., 2850 W. Clay St.
Roach, Edward A., 2850 W. Clay St.
Roter, Alexander M., 2414 W. Clay
Rother, Paul H., 1301 Boonslick Rd.
Schneider, Thomas A., 2850 W. Clay St.
Schuetz, Alfred, 904 Indian Hills
Smoller, Martin B., 2850 W. Clay St.
Soucy, John C., 2850 W. Clay
Tassi, Albert A., 6 Westminster Ct.
Thiele, O. K., 140 N. Kingshighway
Towers, Orville W., 1301 Boonslick Rd.
Vart, Gary R., 2850 W. Clay
Westerfeld, Roy A., 1301 Boonslick Rd.
Wipfler, Earl J., Jr., 405 Duckett
Yaeger, Gerald A., 2444 W. Clay St.

ST. CLAIR COUNTY
(West Central Missouri Medical Society)

ST. FRANCOIS COUNTY
(Mineral Area County Medical Society)

STE. GENEVIEVE COUNTY
(Perry-Ste. Genevieve Counties Medical Society)

ST. LOUIS MEDICAL SOCIETY
(St. Louis)

Aach, Richard D., Barnes Hospital Plaza 63110
Abel, Charles C., 4511 Forest Park Blvd. 63108
Abel, Oliver, III, 4511 Forest Park Blvd. 63108
Abell, Walter E., 2253 S. 39th St. 63110
Abrams, Morris, 4919 Forest Park Blvd. 63108
Acker, Harry L., 150 N. Meramec 63105
Ackerman, Lauren V., 600 S. Kingshighway 63110
Adler, Benard C., 4511 Forest Park Blvd. 63108
Agress, Harry, 8631 Delmar 63124
Ahern, Archibald M., 3915 Watson Rd. 63109
Ahlering, George H., 950 Francis Pl. 63105
Aitken, Louis F., 4989 Barnes Hosp. Plaza 63110
Akyol, Salim, #4 Highfield Lane 63131
Alexander, Frazier D., 4969 Enright 63108
Allen, Henry C., Clayton Medical Bldg., 63105
Allen, Hollis N., 634 N. Grand 63103
Allen, Melvin A., 3701 Grandel Sq. 63108
Allen, Willard M., 4911 Barnes Hosp. Plaza 63110
Allen, William E., Jr., 720 N. Sarah 63108
Alonso-Yague, P., 100 N. Euclid 63108
Altheide, J. Paul, 607 N. Grand 63103
Alvarez, Luis L., 1606 Grattan 63104
Alvis, Bennett Y., 211 N. Meramee 63105
Alvis, Edmund B., 211 N. Meramec 63105
Amado-Ledo, David E., 300 S. Grand Ave. 63103
Anderson, Charles B., Barnes Hosp. Plaza 63110
Anglo, Luis B., 3912 Ritz Center 63125
Anstey, George, 4660 Maryland 63108
Anthony, Elwyn J., 369 N. Taylor Ave. 63108
Arneson, Axel N., 4511 Forest Park 63108
Arney, William G., 16 Hampton Village Plaza 63109
Arnot, John P., 35 N. Central Ave. 63105
Aronberg, Lawrence M., 4466 W. Pine, Apt. 10-G 63108
Atkins, F. Eliska, 5535 Delmar Blvd. 63112
Auer, Arthur I., 667 Langton 63105
Auer, Edward T., #9 Clayton Terr. 63131
Aufderheide, G. R., 2326 Noll Dr. 63136
Aulenbacher, Carl E., 645 S. New Ballas Rd. 63141
Avioli, Louis V., 216 S. Kingshighway 63110
Aylward, Howard J., 6651 Chippewa 63109
Azuma, Nobutaka, 3901 Tholozan 63116
Azzouni, Joseph N., 542 Gravois Rd., Fenton 63026
Babka, Joseph J., 3845 Federer Pl. 63116
Baeker, Matthias H., Jr., 10345 Watson Rd. 63127
Badger, Virginia M., 113 Stoneyside Lane 63132
Bailey, Drennan, 6356 Clayton Rd. 63117
Balazs, Karl J., 165 S.E. Bieney Rd., Port Charlotte, Fla. 33950
Ballinger, Walter F., II, 4960 Audubon Ave. 63110
Bandle, Donald F., 3801 January 63109
Banet, Samuel R., 83 Pebblebrook Lane 63141
Banton, M. Roman, 2917 St. Louis Ave. 63106
Banton, Thomas J., 114 Northland Medical Bldg. 63136
Banton, William C., 615 N. Wolfe, Baltimore, Md. 21205
Barden, Frank W., 41 Beaver Dr., Creve Coeur 63141
Barner, Hendrick, 1325 S. Grand Blvd. 63104
Barrett, Scott R., 5086 Easton 63113
Barrios, Francisco, 5641 Potomac 63139
Bartlett, Robert W., 100 N. Euclid 63108
Bartlett, Willard, Jr., 6744 Clayton Rd. 63117
Bartnick, Mitchel L., 6476 Eichelberger 63109
Baue, Arthur E., 216 S. Kingshighway 63110
Bauer, John D., Northland Medical Bldg. 63136
Bauer, Maria, 1935 Edison, Granite City, Ill. 62040
Bauer, Otto, 1935 Edison, Granite City, Ill. 62040
Baumann, William B., Box 84, APO, New York 09529
Baumgarten, Walter, Jr., 5505 Delmar 63112
Bawell, Malcolm B., 950 Francis Pl. 63105
Beare, J. Byron, 3720 Washington 63108
Beato, David L., 6305 Devonshire 63109
Beaty, William R., 4660 Maryland 63108
Becker, Bernard, 640 S. Kingshighway 63110
Becker, Edward J., 906 Olive 63101
Becker, George H., 6744 Clayton Rd. 63117
Becker, Stanley C., 3720 Washington Blvd. 63108
Beckette, Edmund S., 950 Francis Pl. 63105
Beckman, Donald E., 4205 Virginia Ave. 63111
Behrens, Donald T., 3654 S. Grand Blvd. 63118
Behrens, Gerald L., #3 Colonial Ct. 63124
Beidle, Raymond J., 500 Northwest Plaza, St. Ann 63074
Belancourt, Dunet F., 4503 Pope Ave. 63115
Belew, Joe E., 5505 Delmar 63112
Bell, Robert M., 100 North Euclid 63108
Benjamin, Durand, 7430 Virginia 63111
Benson, John F., 3737 N. Kingshighway 63115
Benton, Calvin B., 8052 Amherst Ave. 63130
Berard, Louis N., 812 Olive 63101
Berg, Leonard, 4989 Barnes Hospital Plaza 63110
Berg, Ralph, 3203 S. Grand 63118
Berger, Robert M., 7752 Keswick Pl. 63119
Bergman, Hugo F., 3720 Washington 63108
Bergmann, Dwayne, 4501 Lindell 63108
Bergner, Grace E., 114 N. Taylor 63108
Berland, Harry I., 812 Olive 63101
Berman, William, 4910 Forest Park Blvd. 63108
Berni, Anthony A., 1311 Crimson Dr. 63141
Berry, John W., 9845 Northbridge 63124
Bersche, Bertram L., 23 Beaver Dr. 63141
Bettonville, Paul J., Jr., 6331 Pershing 63130
Biddy, Ralph L., 915 N. Grand Blvd. 63103
Biller, Hugh F., 8677 Old Towne Dr. 63132
Bilsky, Nathan, 4511 Forest Park Blvd. 63108
Bindbeutel, Arthur H., 5203 Chippewa 63109

Bindbeutel, Donald A., 25 Willow Oak Lane 63122
Binder, Morton A., 4652 Maryland 63108
Bircher, John L., 3932 Federer Pl. 63116
Birge, Clifford A., 320 N. Meramec 63105
Bishop, Mary M., 4524 Forest Park Ave. 63108
Bisno, Daniel, 8000 Bonhomme Rd. 63105
Blackwell, Charles R., 8236 Tulane Ave. 63132
Blair, Vilray P., Jr., #9 Stoney Brooks La. 63124
Bleisch, Virgil R., 634 N. Grand 63103
Block, Arnold S., 4511 Forest Park Blvd. 63108
Blount, Lee, Jr., 3737 N. Kingshighway 63115
Bockelmann, Clifford H., 2615 Brentwood Blvd. 63117
Boedeker, Roy V., 100 N. Euclid 63108
Boemer, Lilborn C., 49 Clermont Lane 63124
Bohne, William R., 2806 S. Fairfield Ave., Ft. Wayne, Ind. 46807
Boldizar, Albert G., 3720 Washington 63108
Boldt, Thomas H., Northland Medical Bldg. 63136
Bondurant, Bryce H., 134 Frontenac Forest 63131
Bonfanti, Albert L., P.O. Box 4148, Jennings Station 63136
Boniuk, Isaac, 4989 Barnes Hospital Plaza 63110
Borowsky, Benjamin A., 100 N. Euclid Ave. 63108
Boswell, John R., 12918 Topping Estates North Dr. 63131
Boveri, Joseph C., 8201 Fendale Dr. 63123
Bowdern, Edward H., #2 Berkshire La. 63117
Bowen, Stephen F., Jr., 16 Hampton Village Plaza 63109
Bowerman, Harold H., 607 N. Grand 63103
Bowers, James E., 325 N. Kirkwood Rd. 63122
Bowersox, Warren A., 214 N. First St., Pacific 63069
Bowles, William T., 4960 Audubon 63110
Boyd, Arthur M., 1615 S. Grand Ave., 63104
Boyarsky, Saul, 4960 Audubon Ave. 63110
Bradley, Frank R., 7904 Oxford Dr. 63105
Bradley, Richard V., 35 N. Central 63105
Brady, Harry R., 47 York Dr. 63144
Brangle, Robert W., 765 High Hampton Rd. 63124
Bremser, Harry L., 6742 Plainview 63109
Brennan, George A., 3654 S. Grand 63118
Brennan, Robert A., 3654 S. Grand 63118
Brennan, Robert V., 111 N. Taylor 63122
Brereton, Robert L., 206 N. Clay Ave. 63122
Bricker, Eugene M., 4989 Barnes Hospital Plaza 63110
Brielmaier, Charles R., 1535 N. Woodlawn 63122
Brinker, Ray A., 510 S. Kingshighway 63110
Brodeur, Armand E., 400 Bambury Way 63131
Bronson, Shael S., 100 N. Euclid 63108
Brookes, Robert D., 5505 Delmar 63112
Broun, Goronwy O., 1325 S. Grand 63104
Broun, Goronwy O., Jr., 6359 Waterman 63105
Brown, E. Eugene, 7508 Cromwell Dr. 63105
Brown, James B., 710 S. Hanley Rd. 63105
Brown, James M., 11936 Beth Dr. 63126
Brown, Seymour, #2 Ricardo La. 63124
Bruce, Helen L., 3263 Hawthorne Blvd. 63104
Brugger, Thomas, 369 N. Taylor Ave. 63108
Bruns, Kenneth, #1 Salem Estates 63124
Bryan, James H., 950 Francis Pl. 63105
Bryan, William T. K., 950 Francis Pl. 63105
Budd, John J., Jr., 9012 Manchester 63144
Burde, Ronald M., 517 S. Euclid 63110
Burford, Cyrus E., 6655 Waterman 63131
Burford, Thomas H., Barnes Hospital Plaza 63110
Burke, Robert J., 6379 Devonshire 63109
Burkhart, Charles A., 1501 Locust St. 63103
Burkhart, Edward F., 141 N. Meramec 63105
Burks, Jess E., 3809 N. Union Blvd. 63115
Burmeister, R. William, 10834 Forest Circle Dr. 63128
Burns, Francis J., 4660 Maryland 63108
Burst, Donald O., 6500 Chippewa 63109
Burton, Forrest Dale, 711 Grand Ave., Hannibal 63401
Busch, Anthony K., 2101 Sidney St. 63104
Bussmann, Donald W., 4 Wood Acre Rd. 63124
Butcher, Harvey R., Jr., 4960 Audubon 63110
Byrne, John E., 3720 Hampton Ave. 63109
Byrum, Fritz A., 650 Manchester Rd. 63011
Caciolo, Carlo, 3654 S. Grand Blvd. 63118
Cadice, John B., 10416 St. Ives Dr. 63136
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Lauer, John D., 555 High Meadow 63131
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Leslie, Charles H., 209 S. Kirkwood Rd. 63122
Levey, Simon A., 4400 Lindell 63108
Levin, Marvin E., 2829 Stonington Pl. 63131
Lewin, Wilbur H., 906 Olive 63101
Lipschitz, Ervin, 225 S. Meramec 63105
Lissner, Arthur B., 6944 Chippewa 63109
Lohr, Robert W., 236 Conway Hill Rd. 63141
Long, Robert W., 7303 Natural Bridge Rd. 63121
Lord, Richard E., 135 W. Adams St. 63122
Lowther, Gerald S., 337 Claymont Dr., Ballwin 63011
Luedde, Fullerton W., 12775 Ladue Rd. 63141
Luehrs, Robert O., 230 S. Bemiston 63105
Lund, Herluf G., 3654 S. Grand 63118
Lund, Robert H., 35 N. Central 63105
Lundblad, Daniel M., 700 Castle 63011
Luther, George A., 426 N. Kirkwood Rd. 63122
Lyss, Carl, 100 N. Euclid 63108
McCall, Edwin L., 22 Hilltop Dr., Kimberling City 65737
McCarthy, Thomas D., 607 East Dr. 63135
McClure, David N., 950 Francis Pl. 63105
McGinnis, William F., 5505 Delmar 63112
McKee, Oliver A., N. Kirkwood Rd. & Washington 63122
McLean, Royal C., 520 W. Jewel 63122
McMurray, Herbert C., Manchester 63062
McNalley, Frank P., 8019 Watkins Dr. 63105
McNalley, Michael, 135 W. Adams 63122
Magee, Charles D., 48 Berkshire 63117
Magee, William E., 4910 Forest Park Blvd. 63108
Magidson, Joseph, 615 Forest Ct. 63105
Magness, Guy N., 608 Kingsland 63130
Mahe, George A., 8039 Park Dr. 63117
Malles, Conrad A., 30 Ballwin Plaza 63011
Mangelsdorf, Thomas K., 149 N. Meramec, Clayton 63105
Maravilla, Levy M., 4211 Bayless 63125
Marcus, Morris D., 8631 Delmar 63124
Margolis, Richard M., 50 Ladue Estates, East 63141
Marmor, William A., 8600 Delmar Blvd. 63124
Martin, Frederick W., 12 Eversdale Ct. 63124
Martz, John C., 6 Denny Lane 63131
Mattis, Robert D., 21 Brentmoor Pk. 63105
Maxwell, Richard W., 5257 Lindell Blvd. 63108
Mayer, Robert A., 950 Francis Pl. 63105
Meador, James R., 9 Bellerive Acres 63121
Meagher, Arthur J., 3654 S. Grand 63118
Medler, John F., 220 Northland Medical Bldg. 63136
Mendelson, David F., 141 N. Meramec 63105
Meneses, Orlando G., VA, Jefferson Barracks 63125
Merrims, Theodore, 1241 Warson Pines 63132
Merritt, Burch A., 7309 Natural Bridge Rd. 63121
Merz, Jean J., 9871 Northbridge Rd. 63124
Meyer, James E., Manchester 63062
Meyer, Jay, 1146 Conwyck La., Frontenac 63131
Mezera, Raymond A., 7345 Whitehaven 63123
Milder, Benjamin, 211 N. Meramec 63105
Miles, Paul W., 100 N. Euclid 63108
Miller, Charles J., 206 N. Fillmore 63122
Miller, Geoffrey W., 4511 Forest Park Blvd. 63108
Minnihan, Robert W., 14535 Marmont Dr., Chesterfield 63017
Molden, Charles A., 7520 Natural Bridge Rd. 63121
Monat, Seymour, 8631 Delmar 63124
Montes, Arturo C., 8700 Riverview Dr., Baden 63147
Montes-de-Oca, Julio, 22 Clayton Terr. 63131
Moon, Thomas R., Jr., 35 N. Central 63105
Moore, Harry G., 917 S. 18th St. 63103
Moore, Harry G., Jr., 141 N. Meramec 63105
Moore, Walter L., 6376 Clayton Rd. 63117
Moore, William E., 7315 Pasedena Blvd. 63121
Mowrer, Marie O., 5400 Arsenal 63139
Mueller, Robert J., 16 Hampton Village Plaza 63109
Mullarky, Wilbur A., 14176 Parliament Dr., Chesterfield 63017
Murphy, John C., 3720 Washington 63108
Nakada, James R., 950 Francis Pl. 63105
Nelson, J. Roger, 135 W. Adams 63122
Newport, Gerald, 64 Ladue Estates 63141
Noller, Henry W., 9440 Midland 63114
Nouhan, Joseph G., 100 Ladue Meadows La. 63141
Nuetzel, John A., 911 S. Brentwood Blvd. 63105
Nunez, Maria M., 10780 Leebur Dr. 63128
Nussbaum, Robert A., 3701 Grandel Sq. 63108
O'Bannon, L. W., Jr., 11895 North Ranch 63033
O'Connor, Robert J., 751 St. Francois St., Florissant 63031
Oglesby, Richard B., 950 Francis Pl. 63105
O'Keefe, Joseph D., 135 W. Adams 63122
O'Neal, Patricia, 4989 Barnes Hosp. Plaza 63110
Ott, Harold J., 2816 Sutton 63143
Ottensmeyer, Charles D., 911 S. Brentwood 63105
Paris, William H., 7520 Natural Bridge Rd. 63121
Park, George M., 825 S. Hanley Rd. 63105
Parker, Brent M., 4960 Audubon 63110
Pawol, S. E., 9408 W. Milton 63114
Peebles, J. B., Jr., 135 W. Adams 63122

Pennoyer, James, 117 Plant Ave., Webster Groves 63119
Perry, H. Mitchell, 1983 Karlin Dr., 63131
Perry, William D., 100 N. Euclid 63108
Peterson, Frederick D., 8025 Dale Ave. 63117
Phillips, Hanford, 6825 Clayton Ave. 63139
Pipes, Keith E., 829 Renderer 63122
Platt, William R., 57 Ridgemoor Dr. 63105
Podos, Steven M., 1140 Beau Jardin Ct., Creve Coeur 63141
Powell, Charles B., 1125 Graham Rd., Florissant 63031
Probst, Raymond E., 10345 Watson Rd. 63127
Rabin, Erwin R., No. 5 Loren Woods 63110
Racadio, Severo M., 223 Ovvrick 63122
Rachlin, Maxwell, 211 N. Meramec 63105
Ragland, John E., Ballwin 63011
Rao, Carlo, 18 Ladue Estates 63141
Redington, James C., Jr., #1 Tuscany Pk. 63105
Reese, A. Victor, 120 E. Lockwood 63119
Reiches, Aaron J., 150 N. Meramec 63105
Reilly, Pierce J., 730 Hodiamont 63112
Reinhard, Edward H., 235 Sylvester 63119
Reitman, Stanley, #8 Heartwoods Ct. 63132
Rendleman, David D., 7401 Kingsbury 63130
Rennard, Marvin, 4511 Forest Park Blvd. 63108
Repp, Theodore J., 9311 Duenke Dr. 63137
Richardson, Thomas F., 7508 Carondelet Ave., Clayton 63105
Ricketts, Harry M., #1 Blackpool Lane 63132
Riggio, Salvatore N., 9901 Gravois Rd. 63123
Roberts, Harold K., 35 N. Central 63105
Roberts, John P., 3015 Barrett Station Rd. 63122
Roberts, John R., 8649 Rosalie 63144
Robertson, Frank G., 141 N. Meramec 63105
Robinson, Edith C., #2 Briar Oak 63132
Roblee, Melvin A., 35 N. Central 63105
Rogers, C. H., 812 Olive 63101
Rogers, John A., 8124 Roxburgh, Clayton 63105
Rohlfing, Edwin H., 315 N. Forsyth 63105
Rolufs, Lloyd S., 135 W. Adams 63122
Roos, Albert, 1040 Sylvan Pl. 63122
Rosenbaum, Louis J., 6521 N. 2nd St., Phoenix, Ariz. 85012
Roufa, Joseph F., 4910 Forest Park Blvd. 63108
Rouse, Ernest T., 100 N. Euclid 63108
Rubenstein, Melvin, 4919 Buckingham Ct. 63108
Rubin, Robert, 10 Adams Ave. 63135
Ruhling, Rudy, 5203 Chippewa 63109
Ryan, John J., 28 Ridgetop 63117
Santillano, Antonio B., 4 Clayton Rd., Ballwin 63011
Schaef, Mary L., 7450 Stanford 63130
Schaerer, Jacques P., 911 S. Brentwood Blvd. 63105
Schattyn, Martyn, 9 Huntleigh Downs 63131
Schechter, Samuel E., 8000 Bonhomme Rd. 63105
Scheele, Paul M., 135 W. Adams 63122
Schlansky, Seymour M., 7247 Delmar 63130
Schluer, Elmer P., 9 Long Meadows 63131
Schmidt, Edmund M., 6704 W. Florissant 63136
Schneider, Sam, 4511 Forest Park Blvd. 63108
Schoentag, John S., 1869 Walnutway Dr. 63141
Schopp, Alvin C., 634 N. Grand 63103
Schultz, E. Robert, 9840 Copper Hill Rd. 63124
Schultz, Samuel, 2730 Watson Rd. 63109
Schwartz, Melvin M., 4511 Forest Park Blvd. 63108
Schwartzman, Bernard, 4511 Forest Park 63108
Schwarz, Luis, 8145 University Dr. 63105
Seabaugh, Ottis D., 105 W. Lockwood 63119
Shatz, Burton A., 4910 Forest Park 63108
Sheffield, William, 135 W. Adams, Kirkwood 63122
Shobe, Frank O., 4500 West Pine Blvd. 63108
Silver, Bernd, 530 Warren 63130
Silverberg, Charles, 45 Rio Vista Dr. 63124
Simril, Wayne A., 100 N. Euclid Ave. 63108
Sisk, James C., 141 N. Meramec Ave. 63105
Skilling, David M., Jr., 5505 Delmar 63112
Skinner, John S., 31 Willow Hill Rd. 63124
Smit, Herbert M., 3720 Washington 63108
Smith, George E., 12629 Rott Rd. 63126
Sommer, Ross B., 100 N. Euclid 63108
Soto, Alberto A., 911 S. Brentwood Blvd., Clayton 63105
Spector, Cene W., 4511 Forest Park Blvd. 63108
Speer, David L., 1043 Port Diane, Box 12643, 63141
Speno, Angelo A., 11815 Point Oak Dr. 63131
Spitz, Milton A., 505 N. Lake Shore Dr., Chicago, Ill. 60611
Spoeneman, Marlin C., 7205 W. Florissant 63136
Staehle, Melvin E., 7325 Ravina Dr., 63121
Stein, Harry J., 6917 W. Florissant 63136
Stein, Leonard P., 2618 Oregon 63118
Steiner, Alexander J., 3720 Washington 63108
Stephens, William A., 3720 Washington 63108
Sterling, John A., 1230 Kenmore Dr. 63122
Stevens, Robert W., 9311 Duenke Dr. 63137
Stewart, Frances H., 7161 Delmar 63130
Stickle, A. W., 135 W. Adams 63122
Strauchen, Cilbert W., No. 8 Knoll Lane, W. Key Largo, Fla. 33037
Stuart, Wallace, 3654 S. Grand 63118
Stuebner, Roland W., 1930 Palm St., Marco Island, Fla. 33937
Sullivan, Wm. Wallace, 1303 Lockett, Kirkwood 63122
Susman, Irvin C., 216 S. Kingshighway 63110
Sutter, Richard A., 819 Locust St. 63101
Tashma, Sigmund, 904 Dalkeith 63132
Teiber, Frederick W., 3201 Washington 63103
Thiele, Belmont R., 10201 Thornwood Dr. 63124
Tobias, Norman, 634 N. Grand 63103
Tomlinson, William L., 1851 Candlewick Dr. 63131
Torin, Bernice A., 951 Old Bonhomme Rd. 63132
Treiman, Robert C., #7 Radnor Rd. 63131
Tremain, E. E., 2901 Big Bend 63117
Trueblood, Alva C., Jr., 325 N. Kirkwood Rd., 63122
Trunko, Leo, 1900 Telegraph Rd. 63125
Tsifutis, Argyrios, 8631 Rosalie Ave. 63144
Turner, James K., 35 N. Central 63105
Ulett, Pearl C., 54 Picardy La. 63124
Valach, Frank J., 1617 S. Brentwood Blvd. 63117
Vatterott, Paul B., 10300 St. Charles Rock Rd. 63114
Viers, Wayne A., 135 W. Adams 63122
Viraghaty, Julius Cyula, 58 Old State Rd., Glencoe 63038
Vitale, Anthony J., 7150 Natural Bridge Rd. 63121
Vitale, Nicholas S., 7150 Natural Bridge Rd. 63121
Vollmar, Clarence J., 8787 Big Bend 63119
Votaw, Robert E., 10 Warson Terr. 63124
Walker, Harvey, Jr., 35 N. Central 63105
Walker, Willard B., 35 N. Central 63105
Walter, William L., 135 W. Adams 63122
Walters, Henry W., 35 N. Central 63105
Walther, Roy A., Jr., #7 High Acres 63132
Waters, E. B., Defiance 63341
Weber, Sol, 1755 S. Grand Ave. 63104
Weber, William K., 4323 Gladwyn Dr., Bridgeton 63044
Wee, George C., 27-B E. Circle Dr. 63125
Weinhaus, Robert S., 7165 Delmar 63130
Weisbrod, Wilfred B., 1805 Gravois 63104
Weisman, Renate D., 500 Northwest Plaza, St. Ann 63074
Weisman, Sol, 500 Northwest Plaza 63074
Wenneker, Alvin S., 8112 Delmar 63130
West, Joseph W., 135 W. Adams 63122
Westrup, Ellsworth A., 8540 Big Bend 63119
Whitener, Miles C., 580 Dielman 63132
Whitener, Paul R., 3291 Carlow Place 63074
Wiedershine, Leonard J., 4511 Forest Park Blvd. 63108
Windsor, Charles E., 4511 Forest Park 63108
Wissmath, Frank S., 35 N. Central Ave. 63105
Wittler, Harry A., 1919 Karlin Dr. 63131
Wolfe, Edward, 401 Delshire 63122
Wolff, Harold D., 4511 Forest Park Blvd. 63108
Wolff, Ray J., 500 Northwest Plaza, St. Ann 63074
Womack, Cranville J., 516 Broadmoor Dr. Chesterfield 63017
Wood, James A., 141 N. Meramec 63105
Wool, Gerald, 731 Oakbrook Lane 63132
Wulft, Ceorge J. L., Jr., 5505 Delmar 63112
Wyatt, Lois C., 134 W. Adams 63122
Yanow, Mitchell, 141 N. Meramec 63105
Yap, Mardonio J. R., 7521 W. Florissant Ave. 63136
Yasdi, A. M., 325 N. Kirkwood Rd. 63122
Zimmerman, Herbert B., 17 Spoede Woods 63141
Zwirn, Benjamin H., Northland Medical Bldg. 63136

SALINE COUNTY MEDICAL SOCIETY
(Marshall 65340)

Aiken, George A., Marshall
Blalock, Robert W., Marshall
Day, Anthony B., Marshall
Haynes, Robert C., Marshall
Knipschild, B. F., Marshall
Lawrence, John R., Marshall
McBurney, C. A., Slater 65349
McCorkle, E. Lee, Marshall
McCoy, Donald L., Marshall
Mead, Samuel T., Slater 65349
Raynor, Richard, Marshall
Reid, James A., Marshall
Roehrs, Marvin E., Marshall
Watson, Cecil L., Marshall

SCHUYLER COUNTY
(North Central Counties Medical Society)

SCOTLAND COUNTY
(Lewis-Clark-Scotland County Medical Society)

SCOTT COUNTY
(SEMO County Medical Society)

SEMO COUNTY MEDICAL SOCIETY
(Stoddard-New Madrid-Mississippi-Scott Counties)
(Sikeston 63801)

Blanton, J. C., Sikeston
Bruce, Leo A., Sikeston
Buckthorpe, Thelma C., Sikeston
Cejas, Leandro P., Sikeston 63801
Colbert, Robert S., Sikeston
Comeau, Richard, Dexter 63841
Critchlow, William C., Sikeston
Davis, Wilbur L., Charleston 63834
Dunaway, Howard A., Sikeston
Du Pont, Jean-René, Sikeston
Ferguson, Wilson J., Sikeston
Frazier, Robert L., Charleston 63834
Heeb, Max A., Sikeston
Husted, George W., Parma 63870
Martin, Andrew D., Sikeston
Page, Jesse W., Sikeston
Parks, Stephen, Sikeston
Popp, Carl G., Sikeston
Rehm, Ralph, Bloomfield 63825
Sandidge, Ernie L., New Madrid 63869
Sargent, Alden P., Sikeston
Sargent, John P., Sikeston
Shell, William C., Sikeston
Throgmorton, Howard B., Sikeston
Till, Bennie N., Dexter 63841
Tull, Frank, Sikeston
Urban, Edgar D., Sikeston
Waddle, Theodore L., Dexter 63840
Waltrip, Roy T., Jr., Sikeston
Whitaker, T. H., East Prairie 63845

SHANNON COUNTY
(Carter-Shannon County Medical Society)

SHELBY COUNTY
(Marion-Ralls-Shelby County Medical Society)

SOUTH CENTRAL COUNTIES MEDICAL SOCIETY
(Howell-Oregon-Texas-Wright-Douglas-Ozark Counties)

Callihan, Charles F., West Plains 65775
Coffee, Amos L., Willow Springs 65587
Cooper, Claude W., Thayer 65574
Denney, Richard W., Mountain Grove 65711
Dreyer, William F., Houston 65483
Fowler, Marvin L., West Plains 65775
Gentry, Marvin C., Ava 65608
Hasek, James A., Mountain Grove 65711
Hasek, O. Martin, Mountain Grove 65711
Miller, Harold W., Willow Springs 65587
Morgan, W. Thomas, Jr., West Plains 65775
Smith, C. Franklin, Willow Springs 65587

Smith, Rollin H., West Plains 65775
Spears, Joe L., Cabool, 65445
Tiffany, Delbert E., RR #3, P.O. Box 36, Peaceful Acres, Poplar Bluff 63901
Walker, Ambrose T., Mammoth Spring, Ark. 72554
Wall, Joe A., Houston 65483
Walton, Marion C., Mountain View 65548
Wiles, Jack N., West Plains 65775

STODDARD COUNTY
(SEMO County Medical Society)

STONE COUNTY
(Ozarks Medical Society)

SULLIVAN COUNTY
(North Central Counties Medical Society)

TANEY COUNTY
(Ozarks Medical Society)

TEXAS COUNTY
(South Central Counties Medical Society)

VERNON COUNTY
(West Central Missouri Medical Society)

WARREN COUNTY
(Franklin-Gasconade-Warren County Medical Society)

WASHINGTON COUNTY
(Mineral Area County Medical Society)

WAYNE COUNTY
(Butler-Wayne-Ripley County Medical Society)

WEBSTER COUNTY MEDICAL SOCIETY

Bareis, Robert J., Marshfield 65706
Macdonnell, Thomas M., Marshfield 65706

WEST CENTRAL MISSOURI MEDICAL SOCIETY
(Bates-Cass-Cedar-St. Clair-Vernon Counties)

Allen, Claude J., Rich Hill 64779
Allen, William H., Nevada 64772
Barone, Paul L., Nevada 64772
Brownsberger, Robert H., Appleton City 64724
Collantes, Jose L., State Hospital #3, Nevada 64772
Davis, C. Braxton, Nevada 64772
Doggett, Sylvester, Sikeston 63801
Eklund, Alfred W., Pleasant Hill 64080
Ellett, William H., Appleton City 64724
Frein, Donald E., Harrisonville 64701
Giesler, Donald H., Osceola 64776
Hansen, Arthur L., Butler 64730
Harms, James F., Nevada 64772
Haynie, William W., Butler 64730
Henry, Robert D., Harrisonville 64701
Jones, Edward S., Harrisonville 64701
King, Elbert R., Route 4, Boise, Idaho 83702
Lane, Jerald P., Franklin & Blaisdell, Minneapolis, Minn. 55404
Langeluttig, Harry V., Jr., Nevada 64772
Long, Curtis W., Butler 64730
Long, David S., Harrisonville 64701
Lusk, Charles A., Jr., Butler 64730
Luter, Carter W., Butler 64730
McCann, Louis P., Nevada 64772
Magee, Robert L., El Dorado Springs 64744
Martin, Forrest L., Nevada 64772
Pascoe, James J., Nevada 64772
Pearse, Roy W., Jr., Nevada 64772
Pickens, E. Allen, 4370 Chateau de Ville Dr., St. Louis 63129
Reed, G. H., Osceola 64776
Richter, William B., Stockton 64785
Rinck, Edward C., Nevada 64772
Ronald, Douglas C., Butler 64730
Seevers, Ruth, Osceola 64776
Strobach, Robert L., Butler 64730
Thies, Jerome H., Osceola 64776
Torontow, John, Nevada 64772
Wheeler, Robert L., Harrisonville 64701
Wray, Rolla B., Nevada 64772

WORTH COUNTY
(Northwest Missouri Medical Society)

Component Society Meeting Dates

Audrain County Medical Society—third Tuesday of each month.
Andrew County Medical Society—meets only on call.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month at 7 p.m.
Buchanan County Medical Society—first Wednesday of each month.
Butler-Wayne-Ripley County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month, September through May.
Clay County Medical Society—fourth Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—fourth Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk-Dade County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Monday of each month.
Franklin-Gasconade-Warren County Medical Society—first Tuesday of each month at the St. Francis Hospital, Washington, at 7 PM.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—March, May, October and December.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets first Wednesday of each month at 7:30 PM.
Johnson County Medical Society—meets only on call.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 PM, at the Victory Cafe, Lexington.
Lewis-Clark-Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—fourth Tuesday of each month.
Marion-Ralls-Shelby County Medical Society—third Tuesday of each month, 7:30 p.m.
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Montgomery County Medical Society—meets only on call.
Morgan County Medical Society—meets only on call.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Northwest Missouri Medical Society (Nodaway-Holt-Atchison-Gentry-North)—second Thursday of each month.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month, September through June.
Pemiscot County Medical Society—second Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday of each month, September through May.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second Wednesday of each month, September through May.
St. Louis Medical Society—third Tuesday of each month, October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month, September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Webster County Medical Society—meets only on call.
West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

For Your Convenience—

New Members . . . Address Changes . . . Notes

This page is provided for your convenience in recording names and addresses of new members of your county society, address changes of members you know and other notations you may wish to make.

Woman's Auxiliary to MSMA

1970-1971 Officers, Directors and Committee Chairmen

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4 Nassau Circle, Creve Coeur 63141
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Mrs. Thomas Thale
341 Meadow Brook, Ballwin 63011
Second Vice-President
Mrs. Charles E. Nickson, Jr.
4425 Larson, Kansas City 64133
Third Vice-President
Mrs. Keith D. Jones
910 East Clark, Warrensburg 64093
Fourth Vice-President
Mrs. James Gordon
600 Boonville Rd., Jefferson City 65101
Recording Secretary
Mrs. Charles R. Willman
2105 Lovers La., St. Joseph 64505
Treasurer
Mrs. Raymond J. Bozzo
No. 6 Catawba Pl., Washington 63090
Auditor
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1830 Calhoun, Chillicothe 64601
Corresponding Secretary
Mrs. F. T. H'Doubler, Jr.
2445 Melbourne Rd., Springfield 65804
Parliamentarian
Mrs. Henry C. Bauman
929 West 3rd, Maryville 64468

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7 Elmwood Park, St. Charles 63301
Fifth District
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918 Westwoods Dr., Columbia 65201
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Mrs. John Brazos
Route 2, Sedalia 65301
Seventh District
Mrs. Bellfield Atcheson
6524 Overhill Rd., Shawnee Mission, Kan. 66208
Eighth District
Mrs. Ned B. Chase
2931 Indiana, Joplin 64801
Ninth District
Mrs. Claude Cooper
Thayer 65574
Tenth District
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808 N. Main, Poplar Bluff 63901

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1530 Riverview Dr., Washington 63090
Archives
Mrs. Frank J. Valach
4 Nassau Circle, Creve Coeur 63141
Bylaws
Mrs. Keith D. Jones
910 E. Clark, Warrensburg 64093
Children and Youth
Mrs. William R. McPhee
1205 West 76th, Kansas City 64114
Community Health
Mrs. Allen P. Klippel
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Courtesy
Mrs. James R. Nakada
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Editor, "Mo. Doctor's Wife"
Mrs. Charles E. H'Doubler
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Mrs. Loren Broaddus
2725 S. Patterson, Springfield 65804
Finance
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2221 Northwest Extension, St. Joseph 64506
Health Careers Co-Chairmen
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2278 Englewood Rd., Springfield 65804
Mrs. Robert Blalock
526 E. Eastwood, Marshall 65340
Historian
Mrs. Jordan Kelling
Waverly 64096
International Health
Mrs. Esther V. Johnston
309 Orange, Route 3, Concordia 64020
Legislation
Mrs. Benjamin F. Smith
No. 5 Fordyce Manor, St. Louis 63131
Medicine and Religion
Mrs. George J. Lytton
617 West 49th, Kansas City 64112
Member-at-Large
Mrs. Donald E. Eggleston
410 N. Rutherford, Macon 63552
Mental Health
Mrs. James N. Haddock
111 Firwood Dr., Webster Groves 63119

FALL CONFERENCE—October 28-29, 1970—Holiday Inn, Warrensburg

SPECIAL COMMITTEES

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MRS. ARMAND D. FRIES
11 W. Geyer La., St. Louis 63131
MRS. WM. HAROLD BAILEY
9157 E. Milton Ave., Overland 63114
MRS. WALLACE R. STACEY
3407 Shady Bend Dr., Independence 64252
MRS. ALBERT FOLKNER
Route 1, Warrensburg 64093

Reading Committee
MRS. FRANK J. VALACH, *Chairman*
No. 4 Nassau Circle, Creve Coeur 63141
MRS. ROMAN HAMMES
505 Concordia, St. Charles 63301
MRS. EARL LOYD
105 Binder Dr., Jefferson City 65101

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DOYLE C. MCCRAW, M.D.
Bolivar 65613

WALTER T. CUNN, M.D.
4617 Dahlia, St. Louis 63116

HOWARD J. MCALHANY, M.D.
1642 E. Catalpa, Springfield 65804

ORGANIZED COUNTIES AND PRESIDENTS
(COUNTIES LISTED ALPHABETICALLY)

Audrain
MRS. JOHN BOYCE
725 Lakeview, Mexico 65265

Buchanan
MRS. CHARLES SHEVLIN
840 N. 25th, St. Joseph 64506

Boone
MRS. ROBERT L. JACKSON
1103 Stewart Rd., Columbia 65201

Butler-Ripley-Wayne
MRS. S. L. GERNSTETTER
1302 Lurlyn Rd., Poplar Bluff 63901

Callaway
MRS. WILLIAM J. CREMER
State Hospital, Fulton 65251

Cape Girardeau
MRS. D. LEROY PARSONS
Chateau Oaks, Cape Girardeau 63701

Clay
MRS. JOHN BALHUIZEN
11 N.E. Hill, Kansas City 64116

Cole
MRS. WILLIAM A. COX
812 Swifts Highway, Jefferson City 65101

Cooper
MRS. W. A. ABALE
627 Krohn Dr., Boonville 65233

Dunklin
MRS. CHARLES R. CASH
1112 White Oaks Pl., Kennett 63857

Franklin-Gasconade-Warren
MRS. R. J. BOZZO
No. 6 Catawba Pl., Washington 63090

Grand River
MRS. B. D. HOWELL
Route 1, St. Catharine 64677

Greene
MRS. CARLE H. SCHROFF
2448 E. Broadmoor, Springfield 65804

Jackson
MRS. GERALD L. MILLER
836 W. 51st, Kansas City 64112

Jasper
MRS. ROBERT ADAMS
1302 Mississippi, Joplin 64801

Jefferson
MRS. HAROLD DONNELL
Box 571, De Soto 63020

Johnson
MRS. C. M. LEDERER
612 Clark, Warrensburg 64093

Lafayette-Ray
MRS. JOSEPH COPE
Lexington 64067

Miller-Morgan-Moniteau
MRS. KENYON LATHAM
200 S. High, California 65018

Mineral Area
MRS. JACK MULLEN
Route 2, Bonne Terre 63628

Pettis
MRS. ELMER VAN DYKE
Route 4, Sedalia 65301

St. Charles-Lincoln
MRS. EARL WIPFLER
405 Duckett Pl., St. Charles 63301

St. Louis City
MRS. HARRY E. RAYBUCK
22 Rolling Rock Ct., St. Louis 63124

St. Louis County
MRS. GRANT IZMIRLIAN
525 Fairview, Webster Groves 63119

Saline
MRS. RICHARD RAYNOR
758 S. Brunswick, Marshall 65340

South Central
MRS. CLAUDE COOPER
328 Chestnut, Thayer 65791

West Central
MRS. A. W. EKLUND
1400 Country Club Dr., Pleasant Hill 64080

Missouri Loan Foundation
Mrs. James C. Denninghoff
1906 Vassar, Columbia 65201

Organization-Membership
Mrs. Thomas Thale
351 Meadow Brook, Ballwin 63011

Press and Publicity
Mrs. James Gordon
600 Boonville Rd., Jefferson City 65101

Program
Mrs. Charles E. Nickson, Jr.
4425 Larson, Kansas City 64133

WA-SAMA Liaison
Mrs. Wallace R. Stacey
3407 Shady Bend Dr., Independence 64252

Environmental Health
Mrs. Marshall T. Metzgar
1205 Fieldcrest, Columbia 65201

AUXILIARIES AND COUNTY MEDICAL SOCIETIES LISTED BY DISTRICTS

FIRST DISTRICT: Andrew,* BUCHANAN, CLAY, Clinton,* GRAND RIVER (Caldwell, Carroll, Daviess, DeKalb, Grundy, Harrison, Linn, Livingston, Mercer), Northwest Missouri (Nodaway, Holt, Atchison, Gentry, Worth),* Platte.*

SECOND DISTRICT: Chariton-Macon-Monroe-Randolph,* Clark-Lewis-Scotland,* Marion-Ralls-Shelby,* North Central (Adair, Knox, Putnam, Schuyler, Sullivan).*

THIRD DISTRICT: ST. LOUIS CITY.

FOURTH DISTRICT: FRANKLIN-GASCONADE-WARREN, JEFFERSON, Lincoln-St. Charles, ST. LOUIS COUNTY.

FIFTH DISTRICT: AUDRAIN, BOONE, CALLAWAY, Camden,** COLE, COOPER, Howard,* MILLER-MORGAN-MONITEAU, Montgomery,* Osage.**

SIXTH DISTRICT: Benton,* Henry,* JOHNSON, LAFAYETTE-RAY, PETTIS, SALINE, WEST CENTRAL (Bates, Cass, Cedar, St. Clair, Vernon).

SEVENTH DISTRICT: JACKSON COUNTY.

EIGHTH DISTRICT: Barton,* Dallas-Hickory-Polk-Dade,* GREENE, JASPER, Ozarks** (Barry, Christian, Lawrence, McDonald, Newton, Stone, Taney),* Webster.*

NINTH DISTRICT: Carter-Shannon,* Mid-Missouri (Crawford, Dent, Laclede, Maries, Phelps, Pulaski),* SOUTH CENTRAL (Douglas, Howell, Oregon, Ozark, Texas, Wright).

TENTH DISTRICT: Bollinger,** BUTLER-RIPLEY-WAYNE, CAPE GIRARDEAU, DUNKLIN, MINERAL AREA (Iron, Madison, Reynolds, St. Francois, Washington), Pemiscot,* Perry-Ste. Genevieve, SEMO (Mississippi, New Madrid, Scott, Stoddard).*

CAPITALIZED COUNTIES—Organized Auxiliary.
* No organized Auxiliary.
** No Medical Society.

STATE PAST-PRESIDENTS—1924-1970

Mrs. George H. Hoxie* (Jackson)**	1924-25
Mrs. M. P. Overholzer* (West Central)	1925-26
Mrs. Arthur B. McGlothlan (Buchanan)** 821 N. 24th, St. Joseph 64506	1926-27
Mrs. W. M. Bickford* (Saline)	1927-28
Mrs. Willard Bartlett, Sr. (St. Louis City) 53 Westmoreland Pl., St. Louis 63108	1928-29
Mrs. M. P. Ravenal* (Boone)	1929-30
Mrs. A. W. McAlester* (Jackson)	1930-31
Mrs. U. J. Busiek (Greene) 1635 E. Walnut, Springfield 65802	1931-32
Mrs. David S. Long (West Central) M. 40, Lake Lotawana, Lee's Summit 64063	1932-33
Mrs. Hudson Talbot (St. Louis City) St. Matthew Manor, 227 Brown's Lane, Louisville, Ky. 40207	1933-34
Mrs. W. H. Goodson* (Clay)	1934-35
Mrs. M. Pinson Neal* (Boone)	1935-36
Mrs. Walter C. Kirchner* (St. Louis City)	1936-37
Mrs. Charles H. Werner* (Buchanan)	1937-38
Mrs. Herbert L. Mantz (Jackson) 1209 Romany Rd., Kansas City 64113	1938-39
Mrs. Paul F. Cole (Greene) 1819 Main, Quincy, Ill. 62301	1939-40
Mrs. S. P. Howard* (Cole)	1940-41
Mrs. J. J. Drace (Cape Girardeau) 903 Bellevue, Cape Girardeau 63701	1941-42
Mrs. Frank L. Davis* (St. Louis City)	1942-43
Mrs. Robert C. Haynes (Saline) 754 Eastwood, Marshall 65340	1943-44
Mrs. J. B. McCubbin (Callaway) 531 E. 20th, New York, N. Y. 10010	1944-45
Mrs. Harry M. Gilkey* (Jackson)	1945-46
Mrs. W. E. Koppenbrink, Sr. (Lafayette-Ray) 1303 Main, Higginsville 64037	1946-47
Mrs. W. L. Allee* (Miller-Morgan-Moniteau)	1947-48
Mrs. August A. Werner* (St. Louis City)	1948-49
Mrs. John J. O'Connell (St. Louis County) 1937 O'Connell Ave., Overland 63114	1949-50
Mrs. Gretchen Van Del McClean (Jackson) 3510 Front St., San Diego, Calif. 92103	1950-51
Mrs. W. Carey Cheek (Greene) 1535 E. Meadowmere, Springfield 65804	1951-52
Mrs. Richard A. Sutter (St. Louis County)** 7215 Greenway Dr., University City 63130	1952-53
Mrs. C. Alex McBurney (Saline) 927 Hurt, Slater 65349	1953-54
Mrs. Wilfred E. Martin (Lafayette-Ray) 403 E. 2nd, Odessa 64076	1954-55
Mrs. Frank B. Leitz (Jackson) 308 W. 116th, Kansas City 64114	1955-56
Mrs. Charles T. Shepherd (St. Louis County) 10 Covington Meadows, St. Louis 63131	1956-57
Mrs. Armand D. Fries (St. Louis City) 11 W. Geyer Lane, St. Louis 63131	1957-58
Mrs. Henry C. Bauman (Nodaway-Holt-Atchison-Gentry-Worth) 929 W. 3rd, Maryville 64468	1958-59
Mrs. Stanley S. Peterson (Greene) 721 E. Stanford, Springfield 65804	1959-60
Mrs. Jordan Kelling (Lafayette-Ray) P. O. Box 171, Waverly 64096	1960-61
Mrs. Frederick E. Wade (Jackson) 413 W. 62nd, Kansas City 64113	1961-62
Mrs. J. Martyn Schattyn (St. Louis County) 9 Huntleigh Downs, Frontenac, St. Louis 63131	1962-63
Mrs. Lawrence S. Crispell (Jasper County) 911 Kensington, Joplin 64801	1963-64
Mrs. Delevan Calkins* (St. Louis City)	1964-
Mrs. Ralph Woods Bohnsack (Grand River) 635 Skyline Dr., Brookfield 64628	1964-66
Mrs. Wallace R. Stacey (Jackson) 3407 Shady Bend Dr., Independence 64052	1966-67
Mrs. John M. Williams (Clay) 616 Ridgeway Dr., Liberty 64068	1967-68
Mrs. E. F. Butler (Buchanan) 3110 Douglas, St. Joseph 64506	1968-69
Mrs. James A. Reid (Saline) 102 E. Rea, Marshall 65340	1969-70

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* Deceased.
** National President.

Roster of Woman's Auxiliary Members by Society

AUDRAIN COUNTY
(Mexico 65265)

Boyce, Mrs. John M., 725 Lakeview
Dwyer, Mrs. Thomas L., 301 N. Cole
Ekern, Mrs. H. Peter, Route 2
Garcia, Mrs. C. L., 8 Melody Lane
Godfrey, Mrs. James J., 1329 Morningside Dr.
Jolley, Mrs. J. F., 726 W. Monroe
Jolly, Mrs. Ben N., 1421 S. Jefferson Rd.
Kallenbach, Mrs. Glen P., Route 5
Kittelberger, Mrs. George William, 1101 West St.
Lankford, Mrs. Harold D., 9 Park Circle
O'Brien, Mrs. Harry F., 408 Harvard
Parrish, Mrs. J. C., 206 W. State, Vandalia, 63382
Rodes, Mrs. Ned D., 625 Lakeview
Rouse, Mrs. David M., 1415 Hickory Hill
Wallace, Mrs. Ed S., 811 S. Jefferson

BOONE COUNTY
(Columbia 65201)

Adams, Mrs. Harold, 212 Brenda Lane
Allen, Mrs. Horace E., 1406 Bass Ave., Apt. 1C
Allen, Mrs. Joseph, 5813 St. Charles Rd.
Allen, Mrs. Robert, Route 2, St. Charles Rd.
Allen, Mrs. William, 508 W. Briarwood Lane
Almond, Mrs. Carl, 213 W. Blvd. South
Amlinger, Mrs. Philip R., 118 W. Rollins Rd.
Anderson, Mrs. Philip C., 908 Edgewood
Arnold, Mrs. Richard C., 814 Yale
Asel, Mrs. Norman, 1112 S. Glenwood
Baker, Mrs. James M., Route 4
Baker, Mrs. Sherwood A., 2620 Walther Ct.
Basket, Mrs. Edgar, 1316 Bass Ave.
Bingham, Mrs. Hal G., 1318 Ridge Rd.
Black, Mrs. Samuel, 300 S. Glenwood
Blackwell, Mrs. Charles, 3109 W. Rollins
Bradford, Mrs. O. F., Frederick Apts.
Bruner, Mrs. Claude, 208 Edgewood
Buessler, Mrs. John A., 606 Longfellow La.
Bumgarner, Mrs. James, 1815 Rollins
Burns, Mrs. Thomas W., 310 E. Brandon Rd.
Bynum, Mrs. William R., 2606 Luan Court
Chalkley, Mrs. Judson, 614 W. Stewart Rd.
Chapman, Mrs. C. Larry, 313 E. Briarwood La.
Check, Mrs. Charles W., 2700 Malibu Ct.
Cochran, Mrs. Donald, 112 Sappington
Cooper, Mrs. Maurice, 1000 Wayne Rd.
Cope, Mrs. James, Route 1, Rocheport 65279
Culley, Mrs. Thomas, 1506 University
Darnell, Mrs. Thomas F. B., 2617 Walther Ct.
Denninghoff, Mrs. James C., 1906 Vassar
DeWeese, Mrs. Marion, 807 Stewart Rd.
Dexheimer, Mrs. Frank, 1004 Hulen Dr.
Eggers, Mrs G. William, Cowon Dr.
Ferneau, Mrs. James, 2218 Bluff Blvd.
Froelich, Mrs. Robert E., 604 W. Broadway
Fuchs, Mrs. George, Jr., 1026 Hickory Hill Dr.
Galeota, Mrs. William, 1719 Ridgemont
Garfinkel, Mrs. Lester, 308 Defoe Dr.
Garrett, Mrs. Glen, 102 E. Brandon Rd.
Gaunt, Mrs. William D., 1117 S. Glenwood
Griffin, Mrs. William T., 822 Greenwood Ct.
Guthrie, Mrs. Richard, 601 W. Briarwood
Hall, Mrs. David G., 1031 Bourn Ave.
Hall, Mrs. John, 308 Hitt
Hardwicke, Mrs. Henry, Ashland 65010
Harris, Mrs. Hugh S., Jr., 801 Cowan Dr.
Harris, Mrs. Robert J., 2008 Hazelwood Dr.
Hart, Mrs. William, 109 Sappington Dr.
Haw, Mrs. Marvin, 1807 Jackson
Hubbell, Mrs. Ira G., 302 McNabb Dr.
Hueser, Mrs. James, 601 W. Blvd. South
Ide, Mrs. Carl, 600 Laurel Drive
Jackson, Mrs. Robert L., 1103 W. Stewart Rd.
Johnson, Mrs. Richard E., 129 Taylor Ct.
Keown, Mrs. Kenneth, 402 Westmount
Kerr, Mrs. Earl S., 1308 Fieldcrest
La Chance, Mrs. Leopold, 324 S. Collier, Centralia 65240
Ladenson, Mrs. Roland, 704 Westmount
Landhuis, Mrs. Leo R., 1715 Highridge Dr.
Leech, Mrs. Charles, 815 W. Stewart Rd.
Leeper, Mrs. Sidlee W., 606 Stewart Rd.
Logue, Mrs. John, 912 Crestland
Lohmar, Mrs. Roland E., 106 Thistledown
Lukens, Mrs. John, 2604 Luan Ct.
Marienfeld, Mrs. Carl, 304 Longfellow La.
Mayer, Mrs. William D., 1 Ridgeley Rd.
McElroy, Mrs. Glenn, Route 5
Mengel, Mrs. Charles, 2713 Bayonne Ct.
Metzgar, Mrs. Marshall T., 1205 Fieldcrest
Miller, Mrs. LeRoy, 32 Bingham Rd.
Mitchell, Mrs. Frank, 810 Greenwood Ct.
Mitchell, Mrs. Lynn D., 200 Defoe Dr.
Mosby, Mrs. Larry D., 104 E. Brandon
Overholser, Mrs. Milton, 110 E. Brandon Rd.
Payne, Mrs. David, 804 Moon Valley Rd.
Payne, Mrs. John, Route 5, Fulton 65251
Pearman, Mrs. Carl C., Williamsburg on the Green
Perez-Mesa, Mrs. Carlos, 609 Stewart Rd.
Pfefer, Mrs. Leland U., 2409 Bluff Blvd.
Pingleton, Mrs. William, 113 Tracy Dr.
Pugh, Mrs. Reginald, 1008 Hickory Hill Dr.
Rall, Mrs. Kenneth L., 1121 Danforth Dr.
Ridenhour, Mrs. C. E. Gene, 1408 Pearl
Rikli, Mrs. Arthur E., 4003 Faurot Dr.
Rink, Mrs. Richard A., 209 Rothwell Dr.
Robnett, Mrs. Dudley A., 2103 S. Country Club Dr.
Rodgers, Mrs. Elrie, 202 S. Glenwood
Ross, Mrs. Gilbert, 300 McNabb Dr.
Russell, Mrs. Garth, 1210 W. Broadway
Scheuber, Mrs. Charles, 505 W. Boulevard S.
Shively, Mrs. John, 1303 Parkridge Dr.
Sights, Mrs. Warren P., 309 Tracy Dr.
Silberman, Mrs. Henry K., 1012 Hickory Hill Dr.
Simmons, Mrs. Earl M., Jr., 2216 Ridgefield Dr.
Smith, Mrs. J. Ned, Jr., 701 W. Boulevard S.
Smith, Mrs. Joe R., 222 E. Parkway
Somers, Mrs. John, Route 3
Soseebee, Mrs. Lee, 1607 Sylvan La.
Spratt, Mrs. John, Jr., 105 S. Glenwood
Spurgeon, Mrs. Milo, 404 Edgewood
Stephenson, Mrs. Hugh E., 1004 Falcon Dr.
Thomas, Mrs. Robert M., 2215 Danforth Ct.
Thompson, Mrs. Ian M., 504 Edgewood
Tinsley, Mrs. John C., 104 S. Glenwood
Waggoner, Mrs. Charles, 712 Hilltop Dr.
Wakerlin, Mrs. George E., 3002 Bray Ave.
Watson, Mrs. Trevor F., 2319 Bluff Blvd.
Weiss, Mrs. James, Route 2
Wheeler, Mrs. Paul, 405 Thilly
Wilson, Mrs. George P., 918 Westwinds Dr.
Wilson, Mrs. John, 1117 Woodhill Rd.
Wilson, Mrs. Vernon, Route 1
Windmiller, Mrs. M. Eugene, 210 S. Glenwood
Wolcott, Mrs. Lester, 2417 Beachview Dr.
Wollschlaeger, Mrs. Paul, 1724 E. Broadway
Woodruff, Mrs. Calvin W., 1021 Lakeside Dr.

BUCHANAN COUNTY
(St. Joseph)

Acuff, Mrs. Robert P., 3015 Miller Rd. 64506
Baker, Mrs. W. C., Savannah 64485
Beck, Mrs. Paul M., 3216 Coronado Rd. 64505
Beheler, Mrs. Edward M., 35 Ridgeland Rd. 64505
Benson, Mrs. Scott C., 4515 Stonecrest Terr. 64506
Berney, Mrs. Francis J., 1225 N. 10th St. 64501
Bristow, Mrs. Robert B., 1610 Ashland 64506
Bryant, Mrs. Sydney L., 1805 N. 33rd 64506
Butler, Mrs. E. F., 3110 Douglas 64506
Callman, Mrs. George, P. O. Box 655, Fairleigh Station 64506
Carpenter, Mrs. G. T., 2612 Indian Trial Dr. 64506
Challener, Mrs. William A., III, 6 Dunn Dr. 64506
Chiarottino, Mrs. Joseph F., 419 N. 21st 64501
Christ, Mrs. Martin H., 414 Benton Dr. 64504
Cox, Mrs. John P., 4208 Miller Rd. 64505
Craig, Mrs. Owen W. D., 1625 Crescent Dr. 64506
Craig, Mrs. Richard D., 3900 Miller Rd. 64505
DuMont, Mrs. Clement, 1905 Francis 64501
Durham, Mrs. S. L., Dearborn 64439
Fischer, Mrs. Martin, 1705 Brookside Dr. 64506
Fisher, Mrs. Joseph L., 2903 Ashland 64506
Forgrave, Mrs. John R., 2611 Cornell 64506
Forgrave, Mrs. Leon Paul, Hundley Dr. 64506
Forman, Mrs. George W., 2412 Ashland 64506
Grimes, Mrs. Manning E., 815 N. Noyes Blvd. 64506
Gunter, Mrs. Joe S., 5710 Karrasch 64506
Hartigan, Mrs. F. X., 1801 Ashland 64506
Hayes, Mrs. Paul W., 610 N. Noyes Blvd. 64506
Herman, Mrs. Allen I., 1909 N. 32nd 64506
Howden, Mrs. T. L., 2723 Francis 64501
Ide, Mrs. Lucien W., 1416 N. 25th 64506
Kieber, Mrs. R. W., 1915 N. 33rd 64506
Kline, Mrs. Edmund W., 17 Stonecrest 64506
Knepper, Mrs. Paul, 2002 Ashland 64506
Kulowski, Mrs. Jacob, 700 N. 25th 64506
Lee, Mrs. Carleton H., 2716 Douglas 64506
Lehman, Mrs. Philip, 91 Stonecrest 64506
Luckinbill, Mrs. Paul, Plattsburg 64477
Mabrey, Mrs. John P., Plattsburg 64477
Maginn, Mrs. R. L., 12 Wishbone Rd. 64506
Marston, Mrs. F. James, 2114 Lovers La. 64505
Martin. Mrs. John, 9 Lindenwood La. 64505
McDaniel, Mrs. John R., 1808 N. 29th 64506
McDonald, Mrs. Wilbur P., 6 Country Club Rd. 64505
McGlothlan, Mrs. A. B., 821 N. 24th 64506
Moen, Mrs. Berwyn H., 2214 Carper Dr. 64506
Morse, Mrs. Marvin W., 2702 Faraon 64501
Mothershead, Mrs. John L., 2630 Fairleigh Terr. 64506
Ness, Mrs. Carl K., 8 Lindenwood La. 64505
O'Brien, Mrs. Liam, State Hospital, Box 263, 64502
O'Connor, Mrs. William B., 2316 N. 22nd 64505
Ozenberger, Mrs. Larry, West Grogan St., Plattsburg 64477
Pe, Mrs. Romualdo, 2818 Felix 64501
Petersen, Mrs. Harold E., 2902 Frederick 64506
Pfeffer, Mrs. Robert, 1915 N. 29th 64506
Pifer, Mrs. Lawrence H., 2120 Manchester Rd. 64505
Potter, Mrs. Caryl, Jr., 1 Pine Rd. 64505
Potter, Mrs. Thompson E., 2106 Lovers La. 64505
Redmond, Mrs. William, 3102 Jule 64501
Riddell, Mrs. Richard V., 2610 Indian Trail Dr. 64506
Rogers, Mrs. John T., 2502 Ashland 64506
Rosenthal, Mrs. Irwin, 2715 Union 64506
Rost, Mrs. William B., 2221 Northwest Ext. 64506
Roundy, Mrs. Collis I., Rd. 2 64505
Saferstein, Mrs. T. H., 2903 Sherman 64504
Senne, Mrs. Herbert C., 1308 S. Noyes 64507

Senor, Mrs. Earl, 2920 Renick 64507
Shevlin, Mrs. Charles F., 840 N. 25th 64506
Sklenar, Mrs. Donald E., 228 Illinois 64504
Smith, Mrs. Clifton, 2821 Ashland 64506
Stallard, Mrs. Donald J., 1417 N. 25th 64506
Stevens, Mrs. Edward, 2913 Joslin Lane 64506
Sweiger, Mrs. James, Plattsburg 64477
Thomas, Mrs. Forrest, 1301 N. 25th 64506
Thompson, Mrs. F. Gregg, III, 2714 Ashland 64506
Tovar, Mrs. Manuel, 3209 Douglas 64506
Villahermosa, Mrs. Juanito, Savannah 64485
Wadlow, Mrs. Ernest E., 2611 Lovers La. 64506
Waggoner, Mrs. Sharon E., 5820 S. 3rd 64504
Weed, Mrs. Randall W., 1821 Clay 64501
Weinand, Mrs. Ernest, 2002 N. 29th 64506
Whitsell, Mrs. Ora Earl, 2306 Sacramento 64507
Willman, Mrs. Charles, 2105 Lovers La. 64505
Willumsen, Mrs. Henry C., 2209 Eugene Field Ave. 64506

BUTLER-WAYNE-RIPLEY COUNTIES
(Poplar Bluff 63901)

Barbour, Mrs. Marvin R., 1721 N. Main
Biggs, Mrs. Fred J., Jr., 808 N. Main
Brookreson, Mrs. A. Davis, 1500 Lurlyn Rd.
Brookreson, Mrs. A. F., Marble Hill Rd.
Caldwell, Mrs. Fred, 2008 King Rd.
Dinelli, Mrs. Frank E., Route 1
Engelhardt, Mrs. Robert C., 1513 Rosedale La.
Gernstetter, Mrs. S. L., 1302 Lurlyn Rd.
Hansbrough, Mrs. Eugene T., 1111 Fairmount
Hecker, Mrs. J. E., 2019 Woodhaven
Hoja, Mrs. W. Alexander, Route 2, Box 16
Kneibert, Mrs. F. L., 1301 Barron Rd.
Ladyman, Mrs. George H., 1403 Lurlyn Rd.
Markel, Mrs. A. D., Jackson Rd.
McCauley, Mrs. B. J., 115 Elm
McLain, Mrs. B. M., Route 2, Hwy. 67 So.
McLane, Mrs. Jerry F., 2107 Jackson Rd.
Miller, Mrs. David V., Hwy. 67 So., Route 5
Parker, Mrs. Arthur C., 708 Selma
Plunkett, Mrs. L. James, 225 S. 6th
Post, Mrs. Cyril A., 960 Cynthia
Raper, Mrs. Charles A., Route 2, Box 17B
Robertson, Mrs. William D., 900 North
Ruff, Mrs. T. Eugene, 1411 Rosedale
Tapp, Mrs. Ernest M., 1401 Lurlyn Rd.
Tuma, Mrs. A. T., 1601 Big Bend Rd.
Turner, Mrs. William, 1308 Nooney
Ward, Mrs. Robert, 2026 Meadow Rd.
White, Mrs. Barry B., 935 Lester

CALLAWAY COUNTY
(Fulton 65251)

Brown, Mrs. John J., 1304 N. Vine
Cremer, Mrs. William J., State Hospital Dr.
Durst, Mrs. Henry, 1 Ivy Lane
Groce, Mrs. George, 1 Bartley Lane
Hill, Mrs. James E., Washington
Jackson, Mrs. Vernon, State Hospital Dr.
Osbourn, Mrs. Richard A., 503 Douglas Blvd.
Peterson, Mrs. Donald, State Hospital # 1
Ritterbusch, Mrs. James K., 2 Bartley Lane
Sydow, Mrs. Henry, 1014 Chippewa
Tellez, Mrs. Edward R., 10 E. Reed
Tuttle, Mrs. Jay F., 4 Reed
Wood, Mrs. George F., 1700 Plaza Dr.

CAPE GIRARDEAU COUNTY
(Cape Girardeau 63701)

Alyea, Mrs. James, 1869 Drury Lane
Ashley, Mrs. H. V., Jr., Perryville Rd.
Ashley, Mrs Hugh V., Sr., 425 Franklin
Bahn, Mrs. Charles, 2418 Brookwood
Barnes, Mrs. Seth S., 1854 Broadway
Blankenship, Mrs. Dale, 907 W. Cape Rock Dr.
Burford, Mrs. Edwin K., 2424 Terrie Hill
Campbell, Mrs. Edward, 1100 N. Henderson
Chapman, Mrs. Jean Allen, 1150 N. Henderson
Cozean, Mrs. Charles, 1548 Oak Lei
Crowe, Mrs. John, 1000 N. Henderson
Dinkins, Mrs. James, 1323 Perryville Rd.
Elrod, Mrs. Dennis B., 2500 Fairlane
Estes, Mrs. Albert, 714 Broadway
Herbert, Mrs. Charles, Sylvan La.
Holcomb, Mrs. John K., 825 N. Fountain
Hoxworth, Mrs. Gerald, 1624 Oxford
Jaeger, Mrs. Joseph, Shady Lane, Jackson 63755
Johnson, Mrs. Earl Wayne, 1044 N. Henderson
Kasten, Mrs. Melvin C., 1209 Sailor Circle
Keim, Mrs. J. Harry, 643 N. West End Blvd.
Kinder, Mrs. James, Route 1, Box 135
Kinder, Mrs. Jerry L., 753 Perry Ave.
Kratz, Mrs. Paul, 1720 Cecilia
Lovinggood, Mrs. Thomas, 2505 Allendale Dr.
Magaletta, Mrs. George, 957 Rodney Dr.
McDonald, Mrs. Eugene, 225 W. Main, Jackson 63755
McGinty, Mrs. Charles, 2435 Brookwood
Nunnelly, Mrs. Gordon, 1432 Themis
Nussbaum, Mrs. Paul, 209 Sunset Blvd.
Oehler, Mrs. William, 1617 Themis
Otto, Mrs. Thomas, 511 Alta Vista
Parsons, Mrs. LeRoy, Chateau Oaks
Rapp, Mrs. Harold, 1011 N. Henderson
Rawlins, Mrs. Fred, 1607 Bertling
Reynolds, Mrs. Garland, P. O. Box 817
Ridings, Mrs. Harold, 96 E. Cape Rock Dr.
Ritter, Mrs. C. J., 2102 Sherwood
Seabaugh, Mrs. Loy, 811 E. Rodney
Seabaugh, Mrs. William, Route 2, Box 563
Shoss, Mrs. Milton, Route 1
Sparkman, Mrs. Thomas, 1629 Oxford Dr.
Stewart, Mrs. Wendell K., 1935 Briarwood
Talbert, Mrs. Clifford R., 1947 Robin Hood Circle
Terry, Mrs. James W., 2530 Jonquil
Tygett, Mrs. Glenn, 834 Alta Vista
Tygett, Mrs. Joseph, 2112 Woodhaven
Wallwork, Mrs. J. Caleb, Illmo 63754
Weeks, Mrs. George, 1814 Scott's Lane
Williams, Mrs. W. A., Jr., Route 2, Box 501
Wilson, Mrs. Charles, Oak Lei Dr.
Wolff, Mrs. Paul, 90 E. Cape Rock Dr.

CLAY COUNTY
(Kansas City)

Allen, Mrs. Louis, 501 S. Woodland Dr. 64118
Armstrong, Mrs. Jay H., 4812 Black Swan Dr., Shawnee Mission, Kan. 66216
Arst, Mrs. Herbert E., 1201 E. 81st North 64118
Balhuizen, Mrs. John, 11 Hill 64116
Banks, Mrs. Frank R., 202 Owens Ave., Smithville 64089
Bates, Mrs. G. Comer, 102 E. 43rd North 64116
Bowles, Mrs. Richard, 414 N. Ridge, Liberty 64068
Burk, Mrs. E. K., 1 E. Briarcliff 64116
Castillo, Mrs. Michael E., 530 N. W. 43rd Terr. 64116
Chastain, Mrs. Maurice W., 3 E. 47th N. 64116
Chiles, Mrs. David R., Smithville 64089
Cook, Mrs. Jerry W., 3616 N. E. 67th 64119
Devine, Mrs. Mark W., Jr., 8105 W. 72nd, Shawnee Mission, Kan. 66204
Edwards, Mrs. Theodore F., 512 N.W. 43rd Terr. 64116
Fakhoury, Mrs. Donald A., 4332 N. Central 64116
Fischer, Mrs. Edward H., 4218 Briarcliff Lane 64116
Fotopoulos, Mrs. Chris K., 2917 Cheyenne Circle, North 64116
Fowler, Mrs. I. Charles, 700 E. Barnes Ave. 64118
Gauer, Mrs. Robert J., 525 N.W. 43rd Terr. 64116
Haley, Mrs. Ted M., 4121 N. Briarcliff Rd. 64116
Hall, Mrs. James W., 5701 N. Lake 64118
Hayes, Mrs. Lawrence L., 440 N. Woodland Dr. 64118
Hedges, Mrs. Richard C., 530 Elms Blvd., Excelsior Springs 64024
Hendren, Mrs. Glen W., 516 W. Franklin, Liberty 64068
Hendren, Mrs. Thomas H., Hwy. 33 North, Liberty 64068
Hobbs, Mrs. Earl B., Smithville 64089
Hodge, Mrs. Robert H., 2214 E. 39th North 64116
King, Mrs. Phillip, 429 W. Franklin, Liberty 64068
Kirkland, Mrs. Jerry, 2865 N.E. 59th Terr. 64119
Knox, Mrs. Earl R., 115 E. 43rd St. North 64116
Kuenzi, Mrs. Donald E., 924 S. Woodland Dr. 64118
Langhus, Mrs. Melvin D., 104 W. Englewood Rd. 64118
McCormick, Mrs. James E. 309 Northcrest Dr. 64116
McCracken, Mrs. S. R., 810 St. Louis Ave., Excelsior Springs 64024
McPhee, Mrs. William R., 1205 W. 76th 64114
Mullins, Mrs. B. L., 510 N. E. 106th 64155
Parker, Mrs. Robert H., 112 E. 43rd North 64116
Perico, Mrs. Carlos J., 8446 Juniper, Shawnee Mission, Kan. 66207
Perry, Mrs. Lawrence L., Jr., 6300 N. Lenox 64151
Pileggi, Mrs. Felix A., 424 N.W. Briarcliff Rd. 64116
Reeder, Mrs. Charles C., 3 Maple Circle, Smithville 64089
Revare, Mrs. Paul, 3245 Chippewa Dr. 64116
Roberts, Mrs. L. Marvin, 3709 North Briarcliff Rd. 64116
Robinson, Mrs. Van M., 415 Briarcliff Ct. 64116
Schertz, Mrs. Truman B., 428 N.W. Briarcliff Rd. 64116
Slaughter, Mrs. Carl, 6913 N. Birch Lane 64151
Spelman, Mrs. Arch E., Bridge St., Smithville 64089
Sportsman, Mrs. Weldon L., Route 2, Smithville 64089
Stratman, Mrs. Clarence A., 1500 N. E. 57th Terr. 64118
Triplett, Mrs. Daniel A., 1011 Scott Dr., Liberty 64068
Wald, Mrs. Donald M., 1608 E. 69th, North Gladstone 64118
Waterman, Mrs. Franklin M., 420 Glendale Rd., Liberty 64068
Werner, Mrs. Dean F., 4609 N. Main 64116
Werner, Mrs. Franklin C., 422 Sagamore La. 64116
Williams, Mrs. John M., 616 Ridgeway Dr., Liberty 64068
Williams, Mrs. R. D., 506 Liberty Rd., Smithville 64089
Withrow, Mrs. John B., 3925 N. Main 64116
Wright, Mrs. Earl, 4319 Claymont Dr. 64116

COLE COUNTY
(Jefferson City 65101)

Bregant, Mrs. Robert, 3435 Country Club Dr.
Cooper, Mrs. Charles Winston, 508 E. Miller
Cox, Mrs. William A., 812 Swifts Highway
Dorris, Mrs. Richard P., 1611 Ridgewood
Doyle, Mrs. Matthew J., 2408 Livingston
Enloe, Mrs. L. David, 1200 Moreland
Exon, Mrs. C. Stuart, 916 Boonville
Fullgrabe, Mrs. Emil A., 1914 Green Meadow Dr.
Garner, Mrs. Lynn M., 403 Meier Dr.
Gentry, Mrs. Merritt Logan, 405 Bel Air
Gordon, Mrs. James, 600 Boonville Rd.
Gove, Mrs. Herman S., 712 Broadway
Guhleman, Mrs. Henry V., Jr., 2018 Greenberry Rd.
Gurnee, Mrs. Landon H., 2941 Country Club Dr.
Handler, Mrs. Fred P., 614 Boonville Rd.
Hauser, Mrs. Robert J., Schott Rd.
James, Mrs. Norman, 1719 Green Meadow Dr.
Kanagawa, Mrs. Harold Hajime, 816 Houchin
Kelly, Mrs. Marshall W., 1916 Greenberry Rd.
Klebba, Mrs. Larry B., 3300 Country Club Rd.
Leslie, Mrs. James P. 933 Fairmount
Leslie, Mrs. James T., Jr., 1824 Brookside Blvd.
Loyd, Mrs. Earl L., 105 Binder Dr.
McHaney, Mrs. John W., 1819 Brookside
McKnelly, Mrs. William V., 1106 Lee
Matthews, Mrs. John I., 1314 Moreau Dr.
Meier, Mrs. Francis X., 1913 Hayselton Dr.
Meinershagen, Mrs. Charles W., 138 Forest Hill
Morgan, Mrs. Philip E., 2121 Cedar Hills Rd.
Ossman, Mrs. Julian A., 2407 West Main
Ringo, Mrs. Henry, Centertown 65023
Robb, Mrs. Harold P., 1117 Leslie Blvd.
Russell, Mrs. Joseph P., 1717 Greenberry Rd.
Ryan, Mrs. Thomas J., 1109 Moreau Dr.
Sanders, Mrs. Jack Shelby, 1820 Brookside Blvd.

Schmidt, Mrs. Jerome H., 806 Boonville Rd.
Scott, Mrs. David, 957 Westwood
Sennott, Mrs. John Stephen, 123 Douglas Dr.
Shull, Mrs. G. Donald, 1925 Hayselton Dr.
Siu, Mrs. Kenneth C., 108 Belair Dr.
Stauffer, Mrs. Harry Beach, 830 Boonville Rd.
Stricker, Mrs. Harold C., 1205 Moreau Dr.
Sugarbaker, Mrs. Everett D., 2113 W. Main
Summers, Mrs. Joseph S., Jr., 2313 W. Main
Tanner, Mrs. Robert H., 1910 Greenberry Rd.
Taylor, Mrs. Leon A., 1104 W. Main
Tietjen, Mrs. Fred C., 7 Greentree Rd.
Wallace, Mrs. John K., 220 Ridgeway
Watts, Mrs. Byron Edward, 2112 Forest Dr.
Winegar, Mrs. Alvon C., 1004 Swift's Highway

COOPER COUNTY
(Boonville 65233)

Abele, Mrs. William Arved, Krohn Dr.
Avery, Mrs. Willard Bartlett, 20 Crestview
Beckett, Mrs. Theodore Cooper, 725 Fourth
Diekroeger, Mrs. Manuel Louis, Route 2
Hata, Mrs. Daikichi, 7 Morningside Dr.
Humphreys, Mrs. Edward Tristran, 1123 Third
Stuart, Mrs. Byron McClellan, 910 Shamrock Terr.
Winn, Mrs. George Warren, 607 Poplar
Zeigler, Mrs. William Henry, Weyland Dr.

DUNKLIN COUNTY
(Kennett 63857)

Benson, Mrs. Leo J. J., 204 Wiggs
Cash, Mrs. Charles R., 1112 White Oak Place
Croom, Mrs. D. W., 403 Stokes Blvd., Malden 63863
Dunmire, Mrs. George, 504 S. Baker
English, Mrs. W. D., Cardwell 63829
Hunt, Mrs. John L., 802 Monroe Ave., Campbell 63933
Legan, Mrs. John K., 617 Butler
Miltenberger, Mrs. Paul E., 705 W. Washington
Morehead, Mrs. William E., 505 Beckwith, Malden 63863
Palenske, Mrs. R. L., Box 57, Hornersville 63855
Peck, Mrs. C. R., 234 S. Main
Pu, Mrs. Pin H., 1105 W. Eighth
Tarver, Mrs. Quinton, Box 647
Wilson, Mrs. Loys C., 915 S. Jackson
Zimmerman, Mrs. Joe A., 1105 White Oak Pl.

FRANKLIN-GASCONADE-WARREN COUNTIES

Baker, Mrs. Donald L., Route 1, Union 63084
Bonney, Mrs. Sam, Washington 63090
Bozzo, Mrs. Raymond J., 1235 W. Main, Washington 63090
Brenner, Mrs. Paul A., 108 W. Washington Ave., Owensville 65066
Eisenmann, Mrs. Benjamin B., New Haven 63068
Farrell, Mrs. S. L., 205 Elm, Washington 63090
Goldstein, Mrs. Bernard, No. 4 Ladue Ct., Creve Coeur 63141
Hoelscher, Mrs. H. F., Hickory Haven, Warrenton 63383
Mitchell, Mrs. Thomas J., 501 Highway Dr., St. Clair 63077
Moellenhoff, Mrs. Robert, 2315 E. 5th, Washington 63090
Muench, Mrs. Ludwig O., 1530 Riverview Dr., Washington 63090
Richardson, Mrs. G. A., Union 63084
Richardson, Mrs. W. R., 301 Hwy. 50 West, Union 63084
Shea, Mrs. James, 305 W. Jackson, Owensville 65066
Strehlman, Mrs. Benjamin G., 510 West End, Union 63084

GRAND RIVER COUNTIES
(Caldwell-Carroll-Livingston-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb Counties)

Allen, Mrs. E. W., 1202 N. Jefferson, Carrollton 64633
Atcheson, Mrs. Windsor, 108 Kavanaugh, Trenton 64683
Bales, Mrs. Eugene, 502 W. 3rd Terr., Carrollton 64633
Bohnsack, Mrs. Ralph, 635 Skyline Dr., Brookfield 64628
Conrad, Mrs. Joseph, 1202 Jackson, Chillicothe 64601
Cross, Mrs. Albert, 1903 Moberly Rd., Trenton 64683
Daley, Mrs. Frank, 508 E. Sammuel, Hamilton 64644
Dixon, Mrs. John, 1005 Brookfield, Brookfield 64628
Dowell, Mrs. Donald, 1830 Calhoun, Chillicothe 64601
Ellsworth, Mrs. Willard, Cainsville 64632
Fair, Mrs. William, 1705 Calhoun, Chillicothe 64601
Fuson, Mrs. William, 520 Pleasant View, Trenton 64683
Gale, Mrs. Joseph, 1710 Polk, Chillicothe 64601
Gearhart, Mrs. Merriam, 2100 Beekman, Bethany 64424
Howell, Mrs. Billy, 157 Hunt, Brookfield 64628
Mandler, Mrs. George, 1616 Clay, Chillicothe 64601
Platz, Mrs. John, 804 N. Main, Carrollton 64633
Smith, Mrs. Robert, Country Club Dr., Brookfield 64628
Vandiver, Mrs. V. D., 1836 Polk, Chillicothe 64601
Vinyard, Mrs. Jack, RFD, Carrollton 64633

GREENE COUNTY
(Springfield)

Allen, Mrs. Jerry H., 1324 S. Fairway Terr. 65804
Anthony, Mrs. Dallas D., 1322 S. Pickwick 65804
Ash, Mrs. Charles J., 743 Riverside 65804
Ashley, Mrs. Thomas E., 2740 Pythian 65802
Atkinson, Mrs. Thomas E., Route 9, Box 81A 65804
Auner, Mrs. Cecil R., 649 McCann 65804
Back, Mrs. Donald K., 2852 S. Glendale 65804
Bailey, Mrs. Alan, 2242 Barataria 65804
Baldwin, Mrs. Richard M., 2033 Prairie Lane 65804
Barnhill, Mrs. Loyd, 3215 Bellhurst 65804
Beard, Mrs. R. W., 2928 E. Portland 65804
Bentley, Mrs. John, 2830 Chantilly 65804
Blades, Mrs. Ross, 2845 E. University 65804
Bonebrake, Mrs. McDonald D., 1443 S. Delaware 65804
Boone, Mrs. Martin H., Jr., Route 2, Box 315 65804
Broaddus, Mrs. Loren, 2725 S. Patterson 65804
Brown, Mrs. David W., 2911 Melbourne Rd. 65804
Brown, Mrs. Lyman, 1410 N. Rogers 65802
Burkey, Mrs. Jordon W., 2405 Sheridan 65804
Busiek, Mrs. Paul, Route 9 65804
Busiek, Mrs. Urban J., 1635 E. Walnut 65802
Callaway, Mrs. Guy, Jr., 901 E. Portland 65804
Callaway, Mrs. Guy D., 1155 S. Delaware 65804
Cheek, Mrs. Anne C., 1535 E. Meadowmere 65804
Cheek, Mrs. James W., 910 E. University 65804
Christy, Mrs. Raymond A., 2738 S. Marlan 65804
Clary, Mrs. Wm. W., 2259 Mirabeau 65804
Clawson, Mrs. J. W., 2257 Rosebrier 65804
Clayton, Mrs. Edgar L., 2446 Brentwood 65804
Cochran, Mrs. Thomas E., 2423 Brentwood 65804
Conrad, Mrs. Raymond C., 1338 S. Delaware 65804
Cordonnier, Mrs. James K., 2320 E. Rosebriar 65804
Cox, Miss Eleanor, 1072 Roanoke 65804
Crawford, Mrs. Oral, Route 1, Box 443 65800
Cunningham, Mrs. D. Dean, 1425 S. Delaware 65804
Dolan, Mrs. Daniel L., 2413 Claremont 65804
Domann, Mrs. Darrel, 2506 E. Cherokee 65804
Duncan, Mrs. Robert D., 1234 E. Loren 65804
Elkins, Mrs. Ronald F., 2830 E. Glenwood 65804
Ellis, Mrs. Francis J., 2235 E. Glenwood
Ellis, Mrs. Harry L., 2124 E. Edgewood 65804
Emery, Mrs. Frank E., 4308 Ridgeview 65804
Evans, Mrs. E. L., 833 E. Elm, 65804
Farthing, Mrs. F. R., 1234 E. Walnut 65802
Farthing, Mrs. Gene W., 1235 E. Walnut 65802
Ferguson, Mrs. J. Lynn, 4111 Ridge Dr. 65804
Ferguson, Mrs. Mary V., 1219 S. Clay 65804
Fessenden, Mrs. Ersel M., 634 E. Kingsbury 65804
Francis, Mrs. William C., 2820 E. Glenwood 65804
Freeman, Mrs. S. F., 1339 S. Pickwick 65804
Fry, Mrs. M. A., 2125 Meadow Dr. 65804
German, Mrs. Walter A., Jr., 2659 Luster 65804
Giddings, Mrs. Frank C., 1211 S. Pickwick 65804
Giffin, Mrs. James, Route 2, Box 91
Glover, Mrs. Jack, Route 9 65804
Glynn, Mrs. Robert R., 1101 Benton 65802
Gorelick, Mrs. David F., 1041 Linwood Terr. 65804
Gose, Mrs. Don F., 1339 S. Delaware 65804
Griot, Mrs. Mary J., 1640 E. Sunshine 65804
Haen, Mrs. Charles, Route 3, Box 474 65804
Hall, Mrs. Durward G., 2442 S. Fremont 65804
Hanan, Mrs. Ernest B., 724 E. Kingsbury 65804
Harrison, Mrs. S. W., 3031 Shalimar 65804
Harvey, Mrs. Harold D., 2531 Brentwood 65804
H'Doubler, Mrs. Alice, Route 7, Box 207 65802
H'Doubler, Mrs. Charles E., 1421 Bedford Rd. 65804
H'Doubler, Mrs. F. T., Jr., 2445 Melbourne Rd. 65804
H'Doubler, Mrs. Peter B., 1137 S. Pickwick 65804
Herfkens, Mrs. Kenneth, 2717 S. Marlan 65804
Hills, Mrs. Joe E., 2234 S. Briarcliff
Holland, Mrs. Robert, 2225 E. Edgewood 65804
Hollis, Mrs. Richard, 2236 Englewood Rd 65801
Holmes, Mrs. Daniel E., Route 9, 4318 Sunset 65804
Holmes, Mrs. David R., 2237 E. Rosebrier 65804
Horton, Mrs. James D., 1235 E. Delmar 65804
Huewe, Mrs. Douglas H., 2204 Claiborne 65804
Hulstra, Mrs. Han F. W., 2652 S. Luster 65804
Ippensen, Mrs. John, 3164 Bellhurst 65804
Ivy, Mrs. H. Berry, 215 E. Sunshine 65804
Jameson, Mrs. James E., 1210 S. Weller 65804
Johnson, Mrs. Warford B., 2244 Edgewood 65804
Johnson, Mrs. William F., 973 E. Linwood 65804
Johnston, Mrs. Joseph L., 2855 Southern Hills 65804
Jones, Mrs. Harold L., 2461 S. McCann 65804
Key, Mrs. James S., 2278 Englewood 65801
Klingner, Mrs. George M., Turners 65765
Klingner, Mrs. George M., Route 3, Box 202, Rogersville 65742
Knabb, Mrs. Kenneth E., 1229 E. Catalpa 65804
Langston, Mrs. W. Roland, 1453 S. Fairway 65804
Leagus, Mrs. Charles, 2311 E. Rosebriar 65804
Lemmon, Mrs. G. Bruce, 1462 Virginia 65804
Litton, Mrs. Lyle, 3044 Shalimar 65804
Lockhart, Mrs. Charles E., 1600 E. Catalpa 65804
Loeb, Mrs. Richard, 2924 S. Barnes 65804
Lorenc, Mrs. Ernest, 2819 Canyon Dr. 65804
Lowe, Mrs. H. A., Jr., 1700 E. Walnut 65802
Lovett, Mrs. Robert L., 2743 S. Luster 65804
Lurie, Mrs. Harold H., 2440 Skyline Dr. 65804
Maddux, Mrs. William, 2643 Inglewood Rd. 65804

Mantell, Mrs. Jack, 2416 S. Meadowbrook 65804
Maple, Mrs. Francis M., 2115 E. Edgewood 65804
Maples, Mrs. Ruth, 836 E. Eastwood, Marshall 65340
McAlhany, Mrs. Howard J., 1643 E. Catalpa 65804
McGraw, Mrs. Doyle, Bolivar 65613
McKinsey, Mrs. John J., 2504 S. Franklin 65804
Menchetti, Mrs. Don E., Route 9, Box 425A 65804
Michael, Mrs. Harvey R., 2847 S. Chantilly 65804
Milne, Mrs. Jay L., 1903 E. Meadow Drive 65804
Moseley, Mrs. F. Thomas, 2837 Lomita Circle 65804
Neu, Mrs. Leo T., 3008 Carlisle Circle 65804
Olson, Mrs. E. Rule, 2645 Wildwood Rd. 65804
Overend, Mrs. Don S., 2218 Mirabeau 65804
Owen, Mrs. Garry, 2224 Cherryvale Rd. 65804
Palcheff, Mrs. Chris L., Route 9, Box 400L 65801
Park, Mrs. William I., 815 E. Portland 65804
Parlato, Mrs. George, 2204 Shady Glen 65804
Penninger, Mrs. William H., 2246 Claiborne 65804
Peterson, Mrs. Stanley S., 721 E. Stanford 65804
Podrecca, Mrs. Guido I., 2550 Brentwood Blvd. 65804
Prater, Mrs. Bill George, 3000 Carlisle Circle 65804
Pruett, Mrs. Paul L., Route 9, Box 425 65804
Quinn, Mrs. Paul, 2857 Chantilly 65804
Robinson, Mrs. Gary L., 2117 E. Montclair 65804
Rosen, Mrs. Max, 900 E. Walnut 65806
Sala, Mrs. Jose M., 2901 Utica 65804
Schaeffer, Mrs. Edward, 2218 Shady Glen Dr. 65804
Schroff, Mrs. Carle H., 2448 E. Broadmoor 65804
Schwartz, Mrs. Eugene J., 1315 E. Loren 65804
Schweitzer, Mrs. Fred C., 2550 Luster 65804
Shackter, Mrs. Bruce I., 2534 Barataria 65804
Shane, Mrs. Ramon, 3165 Glenhaven 65804
Siceluff, Mrs. Joseph G., Route 9, Box 84M 65804
Simpson, Mrs. E. L., 2133 Meadowview 65804
Snead, Mrs. William H., 2532 Sheridan 65804
Snodgrass, Mrs. Gary L., 824 Kingsley 65804
Spalding, Mrs. David, 2971 Southern Hills Blvd. 65804
Stewart, Mrs. Robert B., 2360 E. Grand 65804
Stufflebam, Mrs. Robert E., 2323 E. Rosebrier 65804
Sturtevant, Mrs. Harwood N., 2859 Utica 65804
Sweeney, Mrs. Thomas, 2544 E. Greenwood 65804
Tarrasch, Mrs. Ernest, 2114 Langston 65804
Terry, Mrs. James F., Jr., 2471 Sheridan 65804
Thomasson, Mrs. David D., 2311 E. Glenwood 65804
Tombridge, Mrs. T. L., 2830 S. Marlan 65804
Trotter, Mrs. W. Yates, 1243 E. Catalpa 65804
Turner, Mrs. Glenn O., 1462 S. Dollison 65804
Vail, Mrs. A. Denton, 1307 E. Catalpa 65804
Vensel, Mrs. Lee H., Jr., 2255 Meadowview 65804
Waddell, Mrs. Kenneth, 1126 S. Kentwood 65804
Wakeman, Mrs. J. Newton, 1402 Meadowmere 65804
Walker, Mrs. William M., 2845 S. Hills Blvd. 65804
Warres, Mrs. Herbert L., 2614 Englewood Rd. 65801
Webb, Mrs. Richard, 1243 E. Loren 65804
White, Mrs. R. Ned, Route 9, Box 600 65804
Whitlock, Mrs. Courtney, 1340 S. Delaware 65804
Williams, Mrs. John W., 2245 Fritts Lane 65804
Wilson, Mrs. Roy E., Route 9, Box 207 65804
Wise, Mrs. Gordon F., 2850 Southern Hills 65804
Wittmer, Mrs. Samuel C., 2314 E. Washita 65804
Wooldridge, Mrs. Wilfred E., 1126 E. Stanford 65804
Wyrsch, Mrs. Leo M., 2056 S. Meadowview 65804
Yancey, Mrs. Daniel L., 1133 S. Weller 65804
Zahn, Mrs. Robert, 1528 S. Fairway 65804

JACKSON COUNTY
(Kansas City)

Abella, Mrs. Terry K., 8967 E. 62nd Terr. 64133
Abrams, Mrs. Bernard M., 1021 W. 69th 64113
Adelman, Mrs. Arthur, 6305 Aberdeen, Shawnee Mission, Kan. 66208
Agee, Mrs. Loren Glenn, 7400 W. 101st, Shawnee Mission, Kan. 66212
Aks, Mrs. Daniel, 3100 W. 68th, Shawnee Mission, Kan. 66208
Alderman, Mrs. Thomas F., 309 E. 127th 64145
Allebach, Mrs. Hobart K. B., 4308 W. 93rd, Shawnee Mission, Kan. 66207
Allen, Mrs. William Bayne, 2801 W. 63rd, Shawnee Mission, Kan. 66208
Alsop, Mrs. Webb S., Jr., 3604 W. 53rd, Shawnee Mission, Kan. 66205
Altomare, Mrs. Edward P., 1030 W. 65th St. 64113
Altringer, Mrs. Arthur N., 5630 Mission Dr., Shawnee Mission, Kan. 66208
Ammatelli, Mrs. F. J., 1235 W. 57th Terr. 64113
Anderson, Mrs. Raymond B., 6024 State Line, Shawnee Mission, Kan. 66208
Anderson, Mrs. Richard W., 1001 Romany Rd. 64113
Andrus, Mrs. Bailey C., 6508 Overbrook Rd., Shawnee Mission, Kan. 66208
Angles, Mrs. Luis E., 8530 Hiawatha 64114
Arbab, Mrs. Ali A., 2415 W. 67th, Shawnee Mission, Kan. 66208
Arnis, Mrs. Arnold V., 6421 High Dr., Shawnee Mission, Kan. 66208
Arnold, Mrs. John David, 635 East 45th 64110
Aschmann, Mrs. T. H., 8740 Brooklyn 64132
Asher, Mrs. A. Graham, 5410 State Line Rd., Shawnee Mission, Kan. 66208
Atcheson, Mrs. Bellfield, 6524 Overhill Rd, Shawnee Mission, Kan. 66208
Atwell, Mrs. Floyd C., 630 W. 60th Terr. 64113
Bachman, Mrs. Paul L., 1206 W. Truman Rd., Independence 64050
Baer, Mrs. Alvin J., 5800 Howe Dr., Shawnee Mission, Kan. 66205
Baker, Mrs. Philip J., 11440 E. 47th St. 64133
Ballard, Mrs. V. Bryce, 6618 Rainbow, Shawnee Mission, Kan. 66208
Bare, Mrs. Chester I., 10501 E. 78th Terr. 64133
Barelli, Mrs. Pat A., 5609 Mission Dr., Shawnee Mission, Kan. 66208
Barker, Mrs. James B., 2314 West 74th, Shawnee Mission, Kan. 66208
Barloon, Mrs. James H., 612 E. 66th 64131
Barnard, Mrs. John L., 825 W. 52nd 64112
Barnett, Mrs. Gordon P., 6568 High Dr., Shawnee Mission, Kan. 66208
Barry, Mrs. John W., 5510 W. 84th, Overland Park, Kan. 66207
Barry, Mrs. William B., Sulgrave Apts., 122 W. 48th 64112
Basantz, Mrs. Fernando V., 3418 W. 77th Terr., Shawnee Mission, Kan. 66208
Bass, Mrs. Walter R., 6415 Sterling 64133
Bav, Mrs. Merrill R., Woods Chapel Rd., Blue Springs 64015
Becker, Mrs. Rolfe A., 6501 Wenonga Rd., Shawnee Mission, Kan. 66208
Bell, Mrs. William F., 307 Lakeview, Lee's Summit 64063
Bennett, Mrs. J. D., 3216 W. 69th, Shawnee Mission, Kan. 66208
Benoit, Mrs. Hector W., Jr., 2501 W. 64th, Shawnee Mission, Kan. 66208
Berenson, Mrs. Sheldon E., 832 W. 63rd 64113
Bernreiter, Mrs. Michael, 1246 W. 63rd 64113
Berry, Mrs. G. Neill, 5650 High Dr., Shawnee Mission, Kan. 66208
Berry, Mrs. Maxwell G., 5020 Summit 64112
Bickley, Mrs. James E., 2011 West 81st, Shawnee Mission, Kan. 66206
Biggs, Mrs. Alfred D., Jr., 6551 Wenonga Terr., Shawnee Mission, Kan. 66208
Bikales, Mrs. Victor W., 5810 High Dr., Prairie Village, Kan. 66208
Bills, Mrs. Marvin L., 3309 W. 68th, Shawnee Mission, Kan. 66208
Black, Mrs. Eugene C., 3201 W. 67th, Shawnee Mission, Kan. 66208
Blim, Mrs. Richard Don, 2209 W. 68th, Shawnee Mission, Kan. 66208
Bohan, Mrs. Peter T., 4545 Wornall Rd. 64111
Bordy, Mrs. Marvin D., 1911 Romany Rd., Shawnee Mission, Kan. 66208
Borenstine, Mrs. Joseph, 7307 Holmes 64131
Borsuk, Mrs. Gregory M., 5121 Oak Leaf Dr. 64129
Bourke, Mrs. Timothy S., 601 E. Meyer Blvd. 64131
Bowser, Mrs. John F., 3701 Madison 64111
Boyd, Mrs. George K., 4810 W. 80th, Shawnee Mission, Kan. 66208
Boyer, Mrs. Philip A., Jr., 9644-B Lydia Ave. 64131
Boylan, Mrs. Peter C., 6121 W. 90th Terr., Shawnee Mission, Kan. 66207
Braby, Mrs. Howard, 512 Linwood Terr., Independence 64050
Brams, Mrs. Jack B., 5050 Oak 64112
Braverman, Mrs. Abe Elliott, 2701 W. 68th, Shawnee Mission, Kan. 66208
Brown, Mrs. Adrian J., 12 E. 63rd 64113
Brown, Mrs. Elwyn S., 200 West 115th 64114
Brown, Mrs. Menzie H., 7621 Colonial Dr., Prairie Village, Kan. 66208
Brown, Mrs. William R., 8717 Rosewood Dr., Shawnee Mission, Kan. 66207
Brumm, Mrs. L. W., 7421 Wyoming 64114
Bruner, Mrs. Robert, 14909 Little Blue Rd. 64136
Brust, Mrs. Carl H., 6114 Howe Dr., Shawnee Mission, Kan. 66205
Bryan, Mrs. William H., Jr., 3221 Victor 64128
Bryant, Mrs. T. J., 6226 Waldron 64130
Buckner, Mrs. Robert C., 3507 W. 87th, Leawood, Kan. 66206
Budke, Mrs. Harold A., 1219 W. 66th Terr. 64113
Buhler, Mrs. Victor B., 5212 Bellview 64112
Buie, Mrs. Bruce R., 4601 East 110th 64137
Bunting, Mrs. Williston P., 1231 W. 62nd 64113
Burch, Mrs. Buford H., 3734 Locust, Apt. 27, 64109
Burry, Mrs. V. Fred, 5213 Scranton Dr. 64133
Butcher, Mrs. Robert W., 1101 W. 86th Terr. 64114
Byers, Mrs. Philip, 5832 High Dr., Shawnee Mission, Kan. 66208
Caffrey, Mrs. Raymond J., 1314 W. Red Bridge Rd. 64114
Caldwell, Mrs. John K., 436 E. 65th Terr. 64131
Campbell, Mrs. Frederick B., 1032 W. 55th 64113
Capps, Mrs. Eugene C., 6420 High Dr., Shawnee Mission, Kan. 66208
Carlson, Mrs. Hjalmar E., 2709 W. 66th Terr., Shawnee Mission, Kan. 66205
Carmichael, Mrs. Francis A., 5841 High Dr., Shawnee Mission, Kan. 66208
Caruso, Mrs. Alfred A., 2018 W. 70th Terr. Shawnee Mission, Kan. 66208
Casady, Mrs. Gilbert N., 9830 Aberdeen Dr., Shawnee Mission, Kan. 66206
Case, Mrs. William F., 10208 Oak Ridge Dr., Shawnee Mission, Kan. 66212
Casford, Mrs. Ralph, 1236 W. 72nd 64114
Chambers, Mrs. James Q., Jr., 5500 Belinder Ave., Shawnee Mission, Kan. 66205
Chambers, Mrs. James Q., Sr., 4600 J. C. Nichols Parkway, Park Lane Hotel, Apt. 201 64112
Chapman, Mrs. James H., 9820 Lee Blvd., Leawood, Kan. 66206
Childs, Mrs. Richard M., 5325 Mission Woods Terr., Shawnee Mission, Kan. 66206
Clark, Mrs. Irving H., 2811 Blue Ridge Ext., Grandview 64030
Cochrane, Mrs. Joseph J., 3301 W. 68th, Shawnee Mission, Kan. 66208
Cockerell, Mrs. Sanford F., 3501 S. Crysler, Independence 64050
Cohen, Mrs. Harry K., 417 W. 70th 64113

Cohen, Mrs. Robert Alan, 8226 Cherokee Circle, Shawnee Mission, Kan. 66206
Colom, Mrs. George A., 4002 W. 56th Shawnee Mission, Kan. 66205
Connell, Mrs. Evan S., 837 W. 58th Terr. 64112
Cox, Mrs. Kenneth E., 5640 Pembroke La., Prairie Village, Kan. 66208
Cox, Mrs. William L., 1465 Spruce Ave., Liberty 64068
Culbertson, Mrs. William F., 1253 Huntington Rd. 64113
Curran, Mrs. Desmond, 6626 Wenonga Terr., Prairie Village, Kan. 66208
Dalton, Mrs. Timothy, 11841 Oak 64113
Davidson, Mrs. Ken C., 9700 Wenonga Rd., Leawood, Kan. 66206
Davis, Mrs. Donald R., 2501 W. 67th, Shawnee Mission, Kan. 66208
Davis, Mrs. Herbert V., 4601 Holmes 64110
Davis, Mrs. Jack M., 7110 Harecliff Dr. 64133
Davis, Mrs. Richard E., 2300 Drury Lane, Shawnee Mission, Kan. 66208
Davis, Mrs. Robert C., 659 W. 61st Terr. 64113
Demott, Mrs. John D., 4402 Homestead Dr., Prairie Village, Kan. 66208
Demotte, Mrs. John A., 1247 W. 56th 64113
Dempsey, Mrs. Herbert A., 806 Chestnut, Lee's Summit 64063
Dennie, Mrs. Charles C., 2600 Verona Rd., Shawnee Mission, Kan. 66208
Dixon, Mrs. V. L., 2501 W. Paseo 64108
Dlabal, Mrs. L. J., 3729 Blue Ridge Blvd., Independence 64052
Dodge, Mrs. Mark, 5820 State Line Rd., Shawnee Mission, Kan. 66208
Dolezal, Mrs. Joseph B., 7928 Outlook, Prairie Village, Kan. 66208
Dorsch, Mrs. E. H., 3807 Woodland, Independence 64052
Downey, Mrs. James W., 6218 W. 64th Terr., Shawnee Mission, Kan. 66202
Drake, Mrs. Roy F., 6600 Outlook, Shawnee Mission, Kan. 66202
Dreher, Mrs. Richard L., 2101 Shadow La., Shawnee Mission, Kan. 66208
Drisko, Mrs. Robert M., 2100 Stratford Rd., Shawnee Mission, Kan. 66208
Durnell, Mrs. Monaford D., 308 Lincolnwood Dr., Lee's Summit 64063
Edmonds, Mrs. D. D., 9009 Mission Rd., Leawood, Kan. 66206
Eiseman, Mrs. Gustave, 6520 Overhill Rd., Shawnee Mission, Kan. 66208
Elias, Mrs. David J., 10311 Sheley Rd., Independence 64052
Elliott, Mrs. R. Glen, 6136 Reinhardt Dr., Shawnee Mission, Kan. 66205
Elser, Mrs. Otto H., 604 Rankin Rd., Independence 64050
Engelmann, Mrs. Calvin E., 4916 W. 57th Terr., Shawnee Mission, Kan. 66205
Eshelman, Mrs. A. D., 12116 E. 46th 64133
Etzenhouser, Mrs. Merrill, 3318 Oxford, Apt. D., Independence 64052
Etzenhouser, Mrs. Russell D., 1317 W. College, Independence 64050
Eubank, Mrs. Dillard M., 6020 Elm 64133
Eubank, Mrs. Will R., 6113 Lane 64133
Eubank, Mrs. William Y., 1020 W. 60th Terr. 64113
Evans, Mrs. Lawrence, 1240 W. 69th Terr. 64113
Farley, Mrs. Claude C., 3312 W. 87th, Leawood, Kan. 66206
Farney, Mrs. Jacob P., 2721 W. 69th Shawnee Mission, Kan. 66208
Farnsworth, Mrs. Jesse J., 5608 Fairway, Shawnee Mission, Kan. 66205
Feierabend, Mrs. Frank L., 7345 Wyoming 64114
Ferguson, Mrs. James T., Bellerive, 214 E. Armour Blvd. 64111
Ferris, Mrs. Carl R., 629 W. 70th Terr. 64113
Fitzgerald, Mrs. Robert H., 8505 Cherokee Pl., Shawnee Mission, Kan. 66206
Flanders, Mrs. Horace F., 3820 W. 65th Terr., Shawnee Mission, Kan. 66208
Flanders, Mrs. Virgil, 2022 W. 91st, Shawnee Mission, Kan. 66206
Flately, Mrs. John A., 827 Huntington Rd. 64113
Flynn, Mrs. James F., 5720 High Dr., Shawnee Mission, Kan. 66208
Folck, Mrs. William P., 5804 Linden Rd., N.W., Parkville 64152
Forman, Mrs. Louis H., 2801 W. 67th, Shawnee Mission, Kan. 66208
Forsythe, Mrs. Robert W., 6457 Verona Rd., Shawnee Mission, Kan. 66208
Foster, Mrs. Hal, 5050 Oak, Apt. 1028 64112
Fouts, Mrs. Dallas, Sr., 3624 S. Harris, Independence 64052
Fowler, Mrs. Fred D., 1231 W. 56th 64110
Fowler, Mrs. James, 200 W. 53rd Terr. 64112
Fredeen, Mrs. Robert C., 5437 Canterbury Rd., Shawnee Mission, Kan. 66205
Frick, Mrs. J. Paul, 116 Huntington Rd. 64113
Friedman, Mrs. Morris L., 2516 W. 69th, Shawnee Mission, Kan. 66208
Fritzlen, Mrs. Thomas J., 825 W. 63rd 64113
Fuhrman, Mrs. Donald L., 3417 W. 68th, Prairie Village, Kan. 66208
Fulton, Mrs. Albert E., 9501 Madison Ave. 64114
Gainey, Mrs. Harold L., 4907 Sunset Dr. 64112
Gaitonde, Mrs. M. R., 4515 Brentwood Dr. 64111
Galbreath, Mrs. A. M., 8419 W. 89th, Overland Park, Kan. 66212
Ganley, Mrs. Wm. Coyle, 8400 Overhill Dr. 64138
Garner, Mrs. James H., Jr., 6126 West 76th Terr., Shawnee Mission, Kan. 66208
Garrison, Mrs. Roy R., 404 W. 67th Terr. 64113
Gauthier, Mrs. Charles P., 11319 Summit 64114
Geha, Mrs. Braham J., 4 Wyklow, Shawnee Mission, Kan. 66207
Geiger, Mrs. W. A., Jr., 3506 W. 92nd Terr., Leawood, Kan. 66206
Gibson, Mrs. David M., 5318 Sunset Dr. 64112
Gilkey, Mrs. Harry M., 4941 Westwood Rd. 64112
Gillen, Mrs. Billy A., 6500 Maple Dr., Mission, Kan. 66222
Gillmor, Mrs. C. Stewart, 420 E. Armour 64109
Ginsberg, Mrs. Norman A., 1220 W. 67th 64113
Gist, Mrs. W. W., 1208 W. 59th 64113
Goldman, Mrs. Stanley, 5734 Windsor Dr., Shawnee Mission, Kan. 66205
Goldsich, Mrs. Edward, 5115 W. 81st, Prairie Village, Kan. 66208
Goldstein, Mrs. Marvin F., 400 E. 91st 64131
Goodson, Mrs. W. H., Jr., 815 W. 59th 64113
Goolsbee, Mrs. Robert, 6438 Sagamore, Shawnee Mission, Kan. 66208
Gordon, Mrs. Morris P., 10527 Walnut Dr. 64114
Gottsch, Mrs. Joseph C., 7904 Granada, Prairie Village, Kan. 66208
Grakske, Mrs. Charles F., 14203 Kentucky Rd., Independence 64050
Graham, Mrs. Wallace H., 5157 Ward Pkwy. 64112
Green, Mrs. John R., 3424 Norton, Independence 64052
Green, Mrs. John Richard, Jr., 3143 Santa Fe Terr., Independence 64055
Griffith, Mrs. John A., Jr., 6500 Granada Dr., Shawnee Mission, Kan. 66208
Growdon, Mrs. John A., 6508 Aberdeen Rd., Shawnee Mission, Kan. 66208
Gullett, Mrs. Charles C., 8815 W. 72nd Terr., Shawnee Mission, Kan. 66204
Habib, Mrs. Henry N., 440 E. 74th Terr. 64131
Hager, Mrs. David, 8800 East 62nd 64133
Haight, Mrs. John M., 5609 Blue Ridge Blvd. 64133
Hall, Mrs. Ralph R., 10122 Horton Dr., Shawnee Mission, Kan. 66207
Halperin, Mrs. Phillip H., 1011 W. 56th 64113
Hamel, Mrs. Herbert A., 6441 High Dr., Shawnee Mission, Kan. 66208
Hamtil, Mrs. L. W., 9622 Sagamore, Shawnee Mission, Kan. 66206
Hannas, Mrs. Ralston R., 1278 W. 59th 64113
Hardy, Mrs. H. M., 6606 Overhill Rd., Shawnee Mission, Kan. 66208
Hardy, Mrs. John W., 5501 Neosho Lane, Shawnee Mission, Kan. 66205
Harless, Mrs. Morris S., 6844 Cherry 64131
Harrin, Mrs. William R., 119 W. 116th 64114
Hartwig, Mrs. Fred H., 5204 Pawnee Dr., Shawnee Mission, Kan. 66205
Hartwig, Mrs. Raymond W., 3110 Tomahawk, Shawnee Mission, Kan. 66208
Hausheer, Mrs. Herman, 12900 36th Terr., Independence 64050
Haynes, Mrs. Solon E., 5306 Holmes 64110
Heilman, Mrs. Edward J., 6722 Kenwood 64131
Helman, Mrs. Richard G., 6540 Wenonga Rd., Shawnee Mission, Kan. 66208
Herrman, Mrs. George V., Apt. 6, 10855 State Line 64114
Hibbard, Mrs. Blaine Z., 5211 Sunset Dr. 64112
Hickerson, Mrs. William H., 4207 S. Crysler, Independence 64050
Hill, Mrs. J. H., 8115 Meadow Lane Leawood, Kan. 66206
Hink, Mrs. Fred W., 524 Hardy, Independence 64053
Hoadley, Mrs. William D., 9625 Beverly, Shawnee Mission, Kan. 66212
Hodgson, Mrs. Frank H., 1049 W. 55th 64112
Hoeper, Mrs. Samuel D., Box 169, Grandview 64030
Hoffman, Mrs. J. S., 8805 Riggs Circle, Shawnee Mission, Kan. 66212
Hollinger, Mrs. Lloyd A., 4520 West 72nd, Shawnee Mission, Kan. 66208
Hollweg, Mrs. Kenneth C., 808 W. Meyer Blvd. 64113
Holton, Mrs. Edward B., 2817 Westport Rd., Independence 64052
Hook, Mrs. Waller G., 10010 Elmonte, Shawnee Mission, Kan. 66207
Hungate, Mrs. Carroll P., 6845 Oak 64113
Hunt, Mrs. Claude J., 615 W. 65th 64113
Hunt, Mrs. Thomas R., 5804 El Monte Dr., Shawnee Mission. Kan. 66205
Hunter, Mrs. Martin P., 4100 W. 93rd, Shawnee Mission, Kan. 66207
Hunzicker, Mrs. Warren J., 1248 Stratford Rd. 64113
Ingham, Mrs. Walton C., 9723 Overbrook Rd., Leawood, Kan. 66206
Irvine, Mrs. John, 2500 Red Bridge Terr. 64131
Irwig, Mrs. Fred, 5109 W. 87th, Shawnee Mission, Kan. 66207
Ise, Mrs. Frank A., 6700 W. 66th Terr., Overland Park, Kan. 66202
Jacob, Mrs. Walter P., 5301 W. 83rd. Terr., Shawnee Mission, Kan. 66207
Jacobs, Mrs. Morton, 6416 Verona Rd., Prairie Village, Kan. 66208
Jacobs, Mrs. Walter Harvey, 66656 Milhaven Dr., Shawnee Mission, Kan. 66202
James, Mrs. Otis E., Jr., 2810 W. 68th, Shawnee Mission, Kan. 66208
Jansen, Mrs. Robert, 440 E. 66th 64131
Jarvis, Mrs. James A., 600 W. 57th St. 64113
Jenab, Mrs. Morteza, 5964 Overhill Rd., Shawnee Mission, Kan. 66208
Johnson, Mrs. Dallas A., 4111 W. 73rd Terr., Prairie Village, Kan. 66208
Johnson, Mrs. Joseph, 707 Montcrew Dr. 64114
Johnstone, Mrs. Paul N., 117 W. 69th Terr. 64113
Jonas, Mrs. Harry S., 11711 Markham Rd., Independence 64052
Jones, Mrs. Gale O., 6503 Summit 64113
Jones, Mrs. Samuel T., 9915 Cherokee Lane, Shawnee Mission, Kan. 66207
Jones, Mrs. T. Reid, 6341 Roe Rul, Shawnee Mission, Kan. 66208
Justus, Mrs. John B., 5221 Howe Dr., Shawnee Mission, Kan. 66205
Kanarek, Mrs. Joseph, 6112 W. 87th Terr., Leawood, Kan. 66206
Kandt, Mrs. Ray E., Jr., 8900 Maple Dr., Overland Park, Kan. 66207
Kantor, Mrs. Julius M., 6708 High Dr., Shawnee Mission, Kan. 66208
Kantor, Mrs. Samuel, 3604 W. 87th, Leawood, Kan. 66206
Katf, Mrs. Nichola Y., 11812 Central 64114
Kaul, Mrs. Philip G., 5310 Mission Woods Rd., Shawnee Mission, Kan. 66205
Keeler, Mrs. James E., 422 E. Meyer Blvd. 64131
Kelling, Mrs. Douglas, 7705 West 102nd, Shawnee Mission, Kan. 66212
Keltner, Mrs. Raymond O., 8900 Pawnee Lane, Shawnee Mission, Kan. 66206
Kendall, Mrs. Charles A., 604 Red Rd., Independence 64055
Kennard, Mrs. G. Keith, 3658 Madison 64111
Kent, Mrs. Bela, 5839 Cherokee Dr., Shawnee Mission, Kan. 66205
Kettner, Mrs. Edward G., 6510 Milhaven Dr., Shawnee Mission, Kan. 66202
Kiene, Mrs. Richard H., 5835 High Dr., Shawnee Mission, Kan. 66208

Kindred, Mrs. Lynn H., 4606 West 82nd Terr., Shawnee Mission, Kan. 66208
Kitchen, Mrs. W. M., 2700 W. 68th, Shawnee Mission, Kan. 66208
Klein, Mrs. E. H., 7011 Roe, Prairie Village, Kan. 66208
Knight, Mrs. John S., 5800 High Dr., Shawnee Mission, Kan. 66208
Knight, Mrs. Lyle B., 108 Madison La., Lee's Summit 64063
Knoch, Mrs. H. Kermit, 6606 Willow La., Shawnee Mission, Kan. 66208
Koontz, Mrs. Paul G., 301 W. 54th 64112
Kranson, Mrs. Seymour J., 11 Hawthorne Pl., Independence 64052
Krueger, Mrs. Haven, 3608 W. 83rd Terr., Shawnee Mission, Kan. 66206
Kuruvilla, Mrs. George, 1535 Lexington Ct. 64110
Kyger, Mrs. John E., 3612 Blue Ridge, Independence 64052
Lally, Mrs. James J., 800 W. 52nd Terr. 64112
Lamar, Mrs. Frederick C., 803 W. 48th, Apt. 12, 64112
Lamar, Mrs. Robert F., 800 W. 53rd Terr. 64112
Lambie, Mrs. Roger W., 10317 Grant Lane, Shawnee Mission, Kan. 66212
Lampton, Mrs. Lawrence, 204 W. 50th 64112
Landis, Mrs. George K., 10115 Pawnee La., Shawnee Mission, Kan. 66206
Lanning, Mrs. Richard J., 213 W. Greentree Lane 64116
Lapp, Mrs. Harry C., 638 W. 59th 64113
Latham, Mrs. Raymond W., 3008 W. 67th, Shawnee Mission, Kan. 66208
Lauer, Mrs. Daniel J., 8718 Cherokee Lane, Leawood, Kan. 66206
Layle, Mrs. John K., 5500 Chadwick, Shawnee Mission, Kan. 66205
Layton, Mrs. Ira C., 1025 Greenway Terr. 64113
Leitch, Mrs. Cecil G., Route 2, Box 222, Blue Springs 64015
Lemoine, Mrs. Albert N., Sr., 9200 High Dr., Leawood, Kan. 66206
Lentz, Mrs. Clark H., 2600 West 69th, Shawnee Mission, Kan. 66208
Leo, Mrs. William A., 4505 W. 66th, Prairie Village, Kan. 66208
Lewis, Mrs. Revis C., 1001 W. 56th 64113
Lichtor, Mrs. Joseph M., 2109 W. 70th, Prairie Village, Kan. 66208
Lieberman, Mrs. B. Albert, Jr., 1229 W. 67th 64113
Lindgren, Mrs. Charleton J., 12805 East 38th, Independence 64055
Link, Mrs. Vance E., 1201 W. 36th, Independence 64050
Littlejohn, Mrs. Robert, 5215 W. 63rd Terr., Shawnee Mission, Kan. 66208
Long, Mrs. R. Stacy, 3343 Blue Ridge Blvd., Independence 64052
Lowell, Mrs. Paul, 4742 Liberty 64112
Lytton, Mrs. George J., 617 W. 49th 64112
Maben, Mrs. Sam, 8904 East 66th 64133
McCallister, Mrs. Ben D., 6433 Ensley La., Shawnee Mission, Kan. 66208
Maccubbin, Mrs. Don A., 4820 W. 81st, Shawnee Mission, Kan. 66208
Macnaughton, Mrs. Ralph E., 7317 High Dr., Shawnee Mission, Kan. 66208
Mangels, Mrs. Kenneth A., Sr., 1103 W. 36th Terr., Independence 64050
Mantz, Mrs. Herbert L., 1209 Romany Rd. 64113
Marks, Mrs. Mark M., 6537 Summit 64113
Martin, Mrs. Clyde V., 5531 E. Mission Dr., Shawnee Mission, Kan. 66208
Mason, Mrs. Wayne, 53 E. 107th 64114
Masucci, Mrs. Joseph M., 1012 W. 96th Terr. 64114
Mayer, Mrs. John H., Jr., 5739 Windsor Dr., Shawnee Mission, Kan. 66205
McCanse, Mrs. Andrew, 1232 W. 60th Terr. 64113
McClanahan, Mrs. Robert C., 6456 Overbrook Rd., Shawnee Mission, Kan. 66208
McConchie, Mrs. James E., 12903 E. 35th Terr., Independence 64055
McCray, Mrs. Glen, 3715 Johnson Dr., Shawnee Mission, Kan. 66205
McCunniff, Mrs. William B., 3719 Jarboe 64111
McDonnell, Mrs. John F., 5411 Central 64112
McFarland, Mrs. M. Donald, 5830 High Dr., Shawnee Mission, Kan. 66208
McGannon, Mrs. Paul T., 4806 Pawnee La., Shawnee Mission, Kan. 66205
McIntosh, Mrs. Donald E., 4335 Brentwood, Independence 64050
McIntyre, Mrs. J. Donald, 7707 Pennsylvania 64114
McKee, Mrs. Joseph W., Apt. 211, 4202 West 94th Terr., Shawnee Mission, Kan. 66207
McKee, Mrs. Wallace P., 2020 Stratford Rd., Shawnee Mission, Kan. 66208
McKnelly, Mrs. W. V., Jr., 7228 Hadley, Shawnee Mission, Kan. 66204
McMillan, Mrs. Thomas E., 8201 Dearborn, Shawnee Mission, Kan. 66208
McVay, Mrs. James R., Jr., 1233 W. 63rd Terr. 64113
Medlicott, Mrs. William J., 1260 W. 59th 64113
Melgaard, Mrs. S. Ross, 1012 W. 61st Terr. 64113
Meyer, Mrs. Paul W., 5160 Sunset Dr. 64112
Meyers, Mrs. Harold L., 1901 Brookwood Rd., Shawnee Mission, Kan. 66208
Miles, Mrs. George O., 2231 W. 63rd, Shawnee Mission, Kan. 66208
Miller, Mrs. Clint L., 211 Oxford Dr., Lee's Summit 64063
Miller, Mrs. Gerald L., 836 W. 51st 64112
Miller, Mrs. Max I., 4001 W. 66th St., Prairie Village, Kan. 66208
Miller, Mrs. Wilson Herrick, 6400 Verona Rd., Shawnee Mission, Kan. 66208
Miltra, Mrs. Nirmal, 2007 W. 81st Terr., Leawood, Kan. 66206
Mixson, Mrs. William C., 6501 Sagamore Rd., Shawnee Mission, Kan. 66208
Montello, Mrs. Samuel A., 4109 Delmar Dr., Prairie Village, Kan. 66208
Mooney, Mrs. Justin L., 5717 Windsor Rd., Shawnee Mission, Kan. 66205
Mooney, Mrs. Marcel L., 6439 Ensley La., Prairie Village, Kan. 66208
Moore, Mrs. Robert A., 2011 W. 86th Terr., Shawnee Mission, Kan. 66206
Moreano, Mrs. Armando H., 3920 W. 57 Terr., Shawnee Mission, Kan. 66205
Morgan, Mrs. David B., 6513 Jefferson 64113
Morris, Mrs. Joseph H., 5017 George 64133
Morrow, Mrs. Raymond L., 17 W. 69th 64113
Moss, Mrs. Paul, 8701 Walmer, Shawnee Mission, Kan. 66212
Mosser, Mrs. Robert S., 3114 S. Norton, Independence 64052
Muehlberger, Mrs. James J., 10345 Cherokee, Shawnee Mission, Kan. 66206
Mueller, Mrs. M. J., 11723 Central 64114
Mullen, Mrs. Leo M., 1900 West 68th, Shawnee Mission, Kan. 66208
Murphy, Mrs. Edward S., 421 West 68th 64113
Murphy, Mrs. Robert J., 6428 High Dr., Shawnee Mission, Kan. 66208
Murray, Mrs. W. Lee, 10330 Ash, Shawnee Mission, Kan. 66207
Myers, Mrs. Robert M., 804 W. 65th 64113
Naime, Mrs. Mansour J., 9625 Linden Dr., Shawnee Mission, Kan. 66207
Needels, Mrs. Orval T., 207 W. 67th Terr. 64113
Nelson, Mrs. Bentley A., 6429 Willow La., Shawnee Mission, Kan. 66208
Nesselrode, Mrs. John H., 12000 Marbec Trail, Independence 64052
Newman, Mrs. Robert L., 1601 Mews Dr. 64131
Nickson, Mrs. Charles E., Jr., 4425 Larson 64133
Nigro, Mrs. E. Robert, 415 W. 55th 64113
Noback, Mrs. R. K., 628 W. 67th 64113
Noltensmeyer, Mrs. Milton, 3305 S. 50th Terr., Shawnee Mission, Kan. 66205
O'Hearne, Mrs. John J., 5529 High Dr., Shawnee Mission, Kan. 66208
O'Neil, Mrs. James H., 2111 W. 69th Terr., Shawnee Mission, Kan. 66208
Overesch, Mrs. Harry B., 10804 Grandview Rd. 64137
Owens, Mrs. James L., 6913 W. 52nd Terr., Shawnee Mission, Kan. 66202
Ozar, Mrs. Milton B., 1206 W. 62nd 64110
Padfield, Mrs. Earl G., 1900 W. 61st Terr., Shawnee Mission, Kan. 66208
Pakula, Mrs. Sidney F., 333 West Meyer 64110
Parker, Mrs. Hubert M., 1200 W. Red Bridge Rd. 64114
Payne, Mrs. William B., 5325 W. 101st Terr., Overland Park, Kan. 66204
Pearson, Mrs. Paul, 5820 Howe Dr., Shawnee Mission, Kan. 66205
Peete, Mrs. Don Carlos, 3717 Belleview 64111
Penner, Mrs. Stanley, 901 West 101st Terr. 64114
Perico, Mrs. Carlos, 8446 Juniper, Shawnee Mission, Kan. 66207
Perll, Mrs. Maurice F., 830 W. 61st Terr., 64113
Perry, Mrs. Ralph, 7140 Sni-A-Bar Rd. 64129
Petersen, Mrs. George, 4806 W. 68th, Shawnee Mission, Kan. 66208
Petry, Mrs. E. L., 6520 Reeds Dr., Shawnee Mission, Kans. 66202
Pfeutze, Mrs. Edwin L., 5407 W. 100th Terr., Overland Park, Kan. 66204
Piper, Mrs. Donald K., 9929 High Dr., Shawnee Mission, Kan. 66206
Pipkin, Mrs. Garrett, 5427 Baltimore 64112
Pollock, Mrs. Leo H., 6601 Wenonga Terr., Shawnee Mission, Kan. 66208
Porter, Mrs. Louis, 6017 McGee 64113
Potts, Mrs. Donald, 18508 E. 30th Terr., Independence 64050
Powell, Mrs. Nelson E., 9521 Linden, Shawnee Mission, Kan. 66207
Printz, Mrs. Joseph H., 820 W. 64th Terr. 64113
Pugh, Mrs. Richard George, 102 Golfview Dr., Blue Springs 64015
Puls, Mrs. Jerry L., 10100 Glenwood, Shawnee Mission, Kan. 66212
Quer, Mrs. Erich A., 1901 Stratford Rd., Shawnee Mission, Kan. 66208
Raich, Mrs. Robert A., 828 Greenway Terr. 64113
Ramey, Mrs. Ehret O., 8108 Ward Parkway Plaza 64114
Rector, Mrs. Joe Lee, Jr., 3915 W. 53rd, Shawnee Mission, Kan. 66205
Reinhardt, Mrs. G. Robert, 1201 Romany Rd. 64113
Rhoades, Mrs. Arthur, 111 E. Antioch Rd., Box 292, Lenexa, Kan. 66215
Riller, Mrs. L. E., 1267 W. 61st 64113
Rinck, Mrs. William E., 5933 Rockhill Rd. 64110
Roberts, Mrs. Harold M., 1005 Brentwood Cir. 64112
Roberts, Mrs. Sam E., 4550 Warwick Blvd. 64111
Robinson, Mrs. Arthur W., 6600 Wenonga Rd., Shawnee Mission, Kan. 66208
Robinson, Mrs. Ernest Kip, 1015 W. 58th Terr. 64113
Robinson, Mrs. William J., 9931 Lee Cir., Shawnee Mission, Kan. 66206
Robison, Mrs. James Travis, Jr., 4203 W. 92nd Terr., Shawnee Mission, Kan. 66207
Rodgers, Mrs. George H., 10041 El Monte La., Overland Park, Kans. 66204
Rubin, Mrs. Herbert M., 6700 West 100th Terr., Shawnee Mission, Kan. 66212
Rubin, Mrs. Sidney, 1287 W. 72nd 64114
Rubnitz, Mrs. Leon H., 210 W. 94th 64114
Russell, Mrs. James L., 1250 W. 56th 64113
Sabates, Mrs. Felix, 1250 W. 67th Terr. 64113
Saferstein, Mrs. A. Lester, 6859 Cherry 64131
Sanders, Mrs. Clarence E., 4700 Roanoke Pkwy. 64112
Sanders, Mrs. Donald, 11721 Oak 64114
Sanders, Mrs. William F., 1004 W. 66th Terr. 64113
Sandow, Mrs. Theodore L., 651 W. 57th 64113
Sasano, Mrs. J. Richard, 4508 W. 93rd, Prairie Village, Kan. 66207
Sauer, Mrs. Gordon C., 830 W. 58th Terr. 64113
Saunders, Mrs. Everett L., 3839 S. Crysler, Independence 64050
Schaerrer, Mrs. W. C., 5245 Mercier 64112
Schiffmacher, Mrs. Jack E., 4517 W. 65th, Prairie Village, Kan. 66208
Schmidt, Mrs. C. Robert, 9526 Cedar, Shawnee Mission, Kan. 66205
Schoolman, Mrs. Arnold, 8705 Catalina Dr., Shawnee Mission, Kan. 66207
Schorer, Mrs. Edwin Henry, The Walnuts, 5049 Wornall Rd. 64112
Schottman, Mrs. Gerhard W., Jr., 5010 W. 96th Terr., Shawnee Mission, Kan. 66207
Seely, Mrs. Clark W., 3000 W. 68th St., Shawnee Mission, Kan. 66208
Shalet, Mrs. Malcolm F., 9920 Juniper, Shawnee Mission, Kan. 66201
Shapiro, Mrs. L. M., 6429 Holmes 64131
Sheahon, Mrs. J. A., 7211 Richmond 64133
Shelden, Mrs. Russell D., 816 W. 58th Terr. 64113
Shifrin, Mrs. Alexander, 1027 W. 69th Terr. 64113
Shires, Mrs. Edward, 4504 W. 93rd, Shawnee Mission, Kan. 66208

Shockley, Mrs. Clarence, 5927 McGee 64113
Shuey, Mrs. Herbert H., 933 E. 77th Terr. 64131
Shumate, Mrs. D. L., 3703 Penn 64111
Simon, Mrs. Sanford, 8129 Rosewood, Shawnee Mission, Kan. 66208
Sinclair, Mrs. Alexander B., Jr., 1230 W. 61st Terr. 64113
Singleton, Mrs. J. Milton, 4618 Warwick Blvd. 64112
Singleton, Mrs. J. Milton, III, 634 W. 60th Terr. 64113
Skillman, Mrs. Robert K., 10335 High Dr., Shawnee Mission, Kan. 66206
Skinner, Mrs. John T., 824 Westover Rd. 64113
Slentz, Mrs. Edwin L., 4812 W. 66th Terr., Shawnee Mission, Kan. 66208
Slentz, Mrs. William A., 9835 Pembroke Lane, Shawnee Mission, Kan. 66206
Slickman, Mrs. Robert A., 4937 Wyoming 64112
Smith, Mrs. Arthur B., 8409 Wenonga Rd., Shawnee Mission, Kan. 66206
Smith, Mrs. Ira T., 2 Wycklow, Shawnee Mission, Kan. 66207
Smith, Mrs. O. D., 6300 Woodson Rd., Shawnee Mission, Kan. 66202
Smith, Mrs. Wallace B., 3611 S. Delaware, Independence 64050
Sneid, Mrs. Philip, 4201 W. 90th Terr., Overland Park, Kan. 66204
Snider, Mrs. Sam H., 722 Ward Pkwy. 64112
Snider, Mrs. W. Ray, 10700 East 56th Terr. 64133
Spafford, Mrs. Allen L., 5552 Belinder Ave., Shawnee Mission, Kan. 66205
Spalding, Mrs. Wilbur B., Jr., 6206 Robinson, Shawnee Mission, Kan. 66202
Spencer, Mrs. Donald M., 10200 E. 85th Terr., Raytown 64133
Spurny, Mrs. Otto M., 6400 Cherry 64131
Stacey, Mrs. Wallace R., 3407 Shady Bend Dr., Independence 64052
Staggs, Mrs. William A., 641 E. 45th St. 64110
Staley, Mrs. Harry R., 4740 Roanoke Pkwy. 64112
Statland, Mrs. Harry, 1016 W. 69th Terr. 64113
Statland, Mrs. Morris, 2911 W. 66th Terr., Shawnee Mission, Kan. 66208
Steffen, Mrs. L. F., 5521 Crestwood Dr. 64110
Stelmach, Mrs. W. Jack, 4303 W. 93rd Terr., Prairie Village, Kan. 66208
Stockton, Mrs. Raymond W., 5215 W. 81st, Prairie Village, Kan. 66208
Stockwell, Mrs. A. Lloyd, 5736 Windsor Dr., Shawnee Mission, Kan. 66205
Stribling, Mrs. Thomas L., 3808 S. Union, Independence 64055
Summers, Mrs. Caldwell B., 7312 Jarboe 64114
Sutton, Mrs. Richard L., Jr., 5400 Ward Pkwy. 64112
Swisher, Mrs. Robert C., 6034 Lockton La., Shawnee Mission, Kan. 66205
Szabados, Mrs. Ernest D., 1901 S. Leslie, Independence 64050
Tarson, Mrs. Solomon S., 5511 W. 85th, Overland Park, Kan. 66204
Tasker, Mrs. Charles B., 2721 W. 67th Terr., Shawnee Mission, Kan. 66208
Terrill, Mrs. Robert, 10223 Lee Blvd., Shawnee Mission, Kan. 66206
Thiele, Mrs. George H., 4545 Wornall 64111
Thomas, Mrs. Christopher Y., Jr., 5830 Mission Dr., Shawnee Mission, Kan. 66208
Thompson, Mrs. Charles L., 1256 W. 61st Terr. 64113
Tice, Mrs. Wayne K., 3504 S. Delaware, Independence 64050
Trippe, Mrs. Harrison C., 121 Ward Pkwy., Bearittz Apt. 64112
Troeh, Mrs. Richard, 13000 Delaware Dr., Independence 64055
Trowbridge, Mrs. E. H., Jr., 6436 High Dr., Shawnee Mission, Kan. 66208
Tutera, Mrs. D. F., 1260 W. 63rd Terr. 64113
Twin, Mrs. Edward, 8208 Tomahawk, Shawnee Mission, Kan. 66208
Twyman, Mrs. Richard A., 1020 W. 56th 64113
Underwood, Mrs. Dick Holland, 2008 W. 95th, Leawood, Kan. 66206
Valins, Mrs. Eugene, 1209 W. 70th Terr. 64113
Van Biber, Mrs. James T., 3705 Northern Blvd., Independence 64052
Van Buskirk, Mrs. William C., 1909 W. 67th, Shawnee Mission, Kan. 66208
Vaughn, Mrs. James W., 5509 W. 86th, Shawnee Mission, Kan. 66207
Vidals, Mrs. Guillermo, 9509 West 104th Terr., Shawnee Mission, Kan. 66212
Vilmer, Mrs. Charles E., 6209 W. 65th, Shawnee Mission, Kan. 66202
Virden, Mrs. Herbert H., 6533 High Dr., Shawnee Mission, Kan. 66208
Vogel, Mrs. Arthur P., 6524 Willow La., Shawnee Mission, Kan. 66208
Volk, Mrs. George E., 4511 Jarboe 64111
Voth, Mrs. Harold W., 5413 Neosho, Shawnee, Mission, Kan. 66205
Wade, Mrs Frederick E., 413 W. 62nd 64113
Wagner, Mrs. Paul J., 5501 W. 61st Terr., Shawnee Mission, Kan. 66202
Walker, Mrs. James C., 609 E. 96th 64131
Walker, Mrs. John W., 10336 Mohawk Lane, Shawnee Mission, Kan. 66206
Walker, Mrs. Orville C., Jr., 604 Partridge, Independence 64050
Wall, Mrs. Leonard A., 5011 Neosho Ave., Shawnee Mission, Kan. 66205
Waltz, Mrs. Charles, 3500 W. 78th, Shawnee Mission, Kan. 66208
Waltz, Mrs. James R., 6305 Noland Rd. 64133
Waxman, Mrs. Herbert, 2012 West 81st, Shawnee Mission, Kan. 66206
Webster, Mrs. Joseph G., 5532 Locust 64110
Weiford, Mrs. Edward C., 2009 W. 68th, Shawnee Mission, Kan. 66208
Weir, Mrs. Robert K., 10015 E. 36th, Independence 64052
Wheeler, Mrs. Charles B., 820 W. 57th 64113
Wheeler, Mrs. John H., 5650 Mission Dr., Shawnee Mission, Kan. 66208
White, Mrs. Charles H., 6518 Overhill Rd., Prairie Village, Kan. 66208
White, Mrs. James S., 5413 Cleveland 64130
White, Mrs. Stoughton F., 6815 Cherokee La., Shawnee Mission, Kan. 66208
White, Mrs. William E., 613 W. 57th Terr. 64113
Whiteman, Mrs. John R., 9729 Cherokee La., Leawood, Kan. 66206
Whitman, Mrs. Doyle C., 6836 Cherokee La., Shawnee Mission, Kan. 66208
Whitmore, Mrs. J. Stewart, 1039 W. 58th St. 64113
Wicks, Mrs. Edwin O., 506 N. W. 43rd Terr. 64116
Wilber, Mrs. Robert D., 6624 Willow Lane, Shawnee Mission, Kan. 66208
Wilhelm, Mrs. Warren F., 3100 W. 67th Shawnee Mission, Kan. 66208
Wilkinson, Mrs. Charles B., 4604 Benton Blvd. 64130
Wilkinson, Mrs. E. A., 6810 Linden La., Prairie Village, Kan. 66208
Williams, Mrs. Delon Acree, Locarno Apts., 205, 235 Ward Parkway 64112
Williams, Mrs. Frank, 5921 Ward Pkwy. 64113
Williams, Mrs. Joseph C., Jr., 2209 Arno Rd., Shawnee Mission, Kan. 66202
Williams, Mrs. Roland Dean, 3635 Belleview 64111
Williams, Mrs. Thomas A., 7300 Washington 64114
Williams, Mrs. Vincent T., 4400 Blue Ridge Blvd. 64133
Willits, Mrs. Lyle G., 1224 W. 62nd 64113
Willoughby, Mrs. James W., 420 N. Ridge, Liberty 64068
Willoughby, Mrs. Jean B., 1019 W. 69th Terr. 64113
Wilson, Mrs. Brickhouse, 700 Ward Pkwy. 64112
Wilson, Mrs. Clifford C., 5531 Neosho La., Shawnee Mission, Kan. 66205
Winer, Mrs. Herbert J., 2103 W. 69th Terr., Shawnee Mission, Kan. 66208
Winston, Mrs. Bernard H., 1006 W. 67th 64113
Wise, Mrs. George W., 4610 Homestead Dr., Prairie Village, Kan. 66208
Wolf, Mrs. Jack, 6125 Morningside Dr. 64113
Woods, Mrs. S. Dwight, 3408 W. 69th, Shawnee Mission, Kan. 66208
Woods, Mrs. Walton C., 9004 East 73rd 64133
Workman, Mrs. Charles E., 6609 Milhaven Dr., Shawnee Mission, Kan. 66202
Wortmann, Mrs. Robert F., 2819 W. 66th Terr., Shawnee Mission, Kan. 66208
Wright, Mrs. R. Paul, 4902 Belinder Rd., Shawnee Mission, Kan. 66206
Wu, Mrs. William, 4414 Homestead Dr., Prairie Village, Kan. 66208
Wurster, Mrs. W. Joel, 2015 Drury La., Shawnee Mission, Kan. 66208
Youll, Mrs. Donald V., 8329 High Dr., Shawnee Mission, Kan. 66206
Young, Mrs. James E., 9700 Overbrook Rd., Leawood, Kan. 66206
Young, Mrs. J. W., 5443 Mohawk, Shawnee Mission, Kan. 66205
Young, Mrs. Paul R., 7424 Gregory Cir., 64113
Youngblood, Mrs. James, 1209 W. 58th 64113
Zacharias, Mrs. David L., 7819 N. W. Westside Dr. 64152
Zahoney, Mrs. Ivan, 4409 W. 93rd, Shawnee Mission, Kan. 66207
Zoglin, Mrs. Nathan, 333 W. Meyer Blvd. 64113
Zoller, Mrs. David D., 3607 West 47th Terr., Shawnee Mission, Kan. 66205

JASPER COUNTY
(Joplin)

Adams, Mrs. Robert, 1302 Mississippi 64801
Allen, Mrs. David O., Route 4, Box 85 64801
Alquist, Mrs. Dale, 21st & Fairview, Baxter Springs, Kan. 66713
Barnett, Mrs. Norman H., Route 3, Box 181, Tabor Woods 64801
Birsner, Mrs. Frank, 1717 River, Carthage 64836
Black, Mrs. Mervin H., 1001 W. Murphy Blvd. 64801
Bladow, Mrs. Terrence, 2703 Missouri 64801
Burch, Mrs. John E., 1345 Crest Dr., 64801
Butler, Mrs. Patrick, 219 Sergeant 64801
Carnes, Mrs. Victor, 710 N. Sergeant 64801
Chase, Mrs. Ned B., 2931 Indiana 64801
Chesney, Mrs. George W., Jr., 2416 E. 12th 64801
Cohle, Mrs. Richard, 1609 Lilac La., Carthage 64836
Craig, Mrs. Irwin T., 2525 E. 12th 64801
Crawford, Mrs. A. L., 2931 Pearl Ave. 64801
Crispell, Mrs. Lawrence S., 911 Kensington 64801
Curl, Mrs. Howard, 2031½ Pearl 64801
Detar, Mrs. Burleigh, Sr., 410 Jackson 64801
Esther, Mrs. John R., 612 Glenview 64801
Ferguson, Mrs. Lewis H., 604 Plaza Dr. 64801
Ferguson, Mrs. Ralph, 420 E. 33rd 64801
Ferguson, Mrs. Robert M., 2319 East 10th 64801
Fritsch, Mrs. Andrew J., 2920 Pearl 64801
Gaston, Mrs. Samuel, 2720 Ohio 64801
Hallaba, Mrs. Moheb A. S., 808 Hampton Pl. 64801
Hamilton, Mrs. Eugene, 2736 East 15th 64801
Hornback, Mrs. Edward H., 2841 E. 14th 64801
Isbell, Mrs. C. H., 1046 S. Garrison, Carthage 64836
Jeans, Mrs. Virgil, 629 Islington Pl. 64801
Kirschman, Mrs. Robert E., Route 4, Box 359 64801
Koehler, Mrs. John W., 1001 Manitou 64801
Longenecker, Mrs. J. L., 2606 E. 14th 64801
Maclaughlin, Mrs. James C., 2414 Wisconsin 64801
Maddox, Mrs. John D., 1330 Crest Dr. 64801
McKee, Mrs. Howard, 1925 Moffett 64801
McNew, Mrs. W. T., 1204 S. Main 64836
McPike, Mrs. Lloyd H., 2217 Brownell 64801
Myers, Mrs. Roy E., 623 Sergeant 64801
Paddock, Mrs. Charles S., 3910 Range Line 64801
Papp, Mrs. Sandor D., 3343 Pearl 64801
Patterson, Mrs. Donald R., Route 1, Box 481 64801
Patterson, Mrs. Grover S., 1717 River, Carthage 64836
Pence, Mrs. F. Wendell, Route 2, Box 309, Carthage 64836
Post, Mrs. Winfred L., 2630 E. 15th 64801
Powell, Mrs. Robert G., 818 Galena Ave., Galena, Kan. 66739
Schmidt, Mrs. Herbert J., 820 N. Moffet 64801

Schoeberl, Mrs. C. B., 3111 E. 4th 64801
Schulte, Mrs. Gregory A., 2515 E. 12th 64801
Scorse, Mrs. S. W., 619 W. 2nd 64801
Smith, Mrs. Roland T., 426 N. Pearl 64801
Smith, Mrs. Russell W., 315 Euclid, Carthage 64836
Upsher, Mrs. Albert E., 69 Canterbury Lane 64801
Walker, Mrs. Paul, 1022 N. Sergeant 64801
Wood, Mrs. George H., 530 E. Highland, Carthage 64836
Wooldridge, Mrs. Bart F., 1435 Crest Dr. 64801
Young, Mrs. C. C., 2518 E. 13th 64801

JEFFERSON COUNTY

Albee, Mrs. Roger, Crystal City 63019
Bolgar, Mrs. Bertalan, Festus 63028
Carroll, Mrs. Richard C., Crystal Hts. Rd., Crystal City 63019
Deles, Mrs. Vincente, Crystal City 63019
Glasgow, Mrs. Mary, Crystal City 63019
Ibaviosa, Mrs. Alfred, Festus 63028
Judge, Mrs. Thomas, Crystal City 63019
Mayfield, Mrs. Logan, Crystal City 63019
Senn, Mrs. Emmett, Herculaneum 63084

JOHNSON COUNTY
(Warrensburg 64093)

Cada, Mrs. Edward, 901 E. Clark
Cooper, Mrs. R. Lee, 712 Laurel Ave. 64093
Folkner, Mrs. Albert L., Route 1 64093
Hanna, Mrs. Hugh, Route 5 64093
Harkness, Mrs. Harry H., Burkarth Rd.
Johnson, Mrs. Charles S., 502 Hurricane Hill
Jones, Mrs. Keith D., 910 E. Clark
Lederer, Mrs. Charles M., 617 Clark
Maxson, Mrs. R. Reed, Arilen Acres

LAFAYETTE-RAY COUNTIES

Boydston, Mrs. Wayne, Odessa 64076
Brady, Mrs. Hugh, Concordia 64020
Brasher, Mrs. Ben H., Lexington 64067
Cook, Mrs. Edna, Richmond 64085
Cook, Mrs. Thos. B., Richmond 64085
Cope, Mrs. Joseph S., Lexington 64067
Crozier, Mrs. Frank, Sr., Route 2, Richmond 64085
Davault, Mrs. George, Richmond 64085
Fulkerson, Mrs. W. E., Higginsville 64037
Huber, Mrs. Herbert, 205 E. Royle, Richmond 64085
Johnston, Mrs. Esther, Concordia 64020
Kelling, Mrs. Jordan, Waverly 64096
Koppenbrink, Mrs. W. E., Jr., Higginsville 64037
Koppenbrink, Mrs. W. E., Sr., Higginsville 64037
Liston, Mrs. Odis, Oak Grove 64075
Martin, Mrs. W. E., Odessa 64076
Pavlu, Mrs. Robert R., 14 W. 13th, Carrollton 64633
Riley, Mrs. Charles, 314 N. Thornton, Richmond 64085
Ward, Mrs. Joe W., Lexington 64067
Williams, Mrs. John, Oak Grove 64075

MILLER-MONITEAU-MORGAN

Buehler, Mrs. Carl T., Jr., Eldon 65026
Burke, Mrs. J. P., California 65018
Fulks, Mrs. Richard B., California 65018
Gallagher, Mrs. Lionel M., California 65018
Gunn, Mrs. Jack, Versailles 65084
Hall, Mrs. C. Robert, 306 N. Van Buren, Versailles 65084
Latham, Mrs. Kenyon, 200 S. High, California 65018
Lyle, Mrs. Ray, Versailles 65084
Shelton, Mrs. E. O., Eldon 65026
Washburn, Mrs. J. L., Versailles 65084

MINERAL AREA
(St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve Counties)

Appleberry, Mrs. Charles H., 706 W. Main, Flat River 63601
Carleton, Mrs. Charles E., 501 Center, Farmington 63640
Crouch, Mrs. F. Richard, 714 Ste. Genevieve, Farmington 63640
Dennis, Mrs. Paul, 709 Tyler, Flat River 63601
Huckstep, Mrs. Robert A., Route 1, Farmington 63640
Mardini, Mrs. Edward, 140 Church, Bonne Terre 63628
Mullen, Mrs. Jack, Route 2, Bonne Terre 63628
Osborn, Mrs. R. W., III, State Hospital Grounds, Farmington 63640
Turner, Mrs. Kirby, Potosi 63664

PETTIS COUNTY
(Sedalia 65301)

Block, Mrs. Jerome E., 807 Ruth Ann Dr.
Boger, Mrs. John W., 2803 Skyline Dr.
Brady, Mrs. Charles H., 720 W. 5th St.
Braverman, Mrs. Elliot M., 2510 Wing Ave.
Brazos, Mrs. John, Route 2
Burkeholder, Mrs. James, 2002 S. Kentucky
Campbell, Mrs. Albert J., 1500 W. 16th
Edmonds, Mrs. Robert, 2413 S. Stewart
Edwards, Mrs. David R., 1619 S. Moniteau
Eldenburg, Mrs. Donald, Route 2
Fisher, Mrs. Stanley D., 2200 S. Kentucky
Glass, Mrs. Robert L., 720 S. Beacon
Gonser, Mrs. Karl B., 1619 W. Broadway
Hite, Mrs. H. A., 416 S. Grand
Hopkins, Mrs. Thomas J., 1506 W. Broadway
Lamy, Mrs. John E., 509 W. Broadway
Long, Mrs. Frank B., 723 W. 7th
Owens, Mrs. John H., 1913 Fairview Ct.
Proctor, Mrs. Donald C., 717 W. 6th
Roberts, Mrs. Paul A., 101 E. Marshall, Sweet Springs 65351
Stauffacher, Mrs. Gordon C., 1313 W. Broadway
Stewart, Mrs. Robert H., 201 Driftwood Dr.
Stockwood, Mrs. Robert G., 2600 S. Quincy
Van Dyke, Mrs. Elmer, Route 4, Box 91A
Worley, Mrs. C. A., 102 W. Ray, Sweet Springs 65351

ST. CHARLES-LINCOLN COUNTIES
(St. Charles 63301)

Baird, Mrs. Keim L., 16 Warwick Ct.
Berry, Mrs. Paul, 160 Harris, Troy 63379
Cannon, Mrs. Richard, 1000 Cole
Canty, Mrs. Eugene, 1824 Sibley
Clay, Mrs. Calvin, 808 Oak
Clever, Mrs. Henry, 815 Indian Hills Dr.
Commerford, Mrs. John, 10 Rio Vista
Creech, Mrs. Joseph, Troy 63379
Crider, Mrs. Russell, 1875 S. River Rd.
Damron, Mrs. Edward, 602 N. 5th, Elsberry 63343
Del Pizzo, Mrs. Ferdinand, 900 Elmwood
Duling, Mrs. Gerald, 5 Shawnee Dr.
DuMontier, Mrs. R. J., O'Fallon 63366
Felder, Mrs. James, 449 Nantucket
Fleming, Mrs. Robert, 2 Indian Hills Ct.
Goldkamp, Mrs. John, 10 Shawnee
Gore, Mrs. Glenn, 140 Ladue Pines Rd., Creve Coeur 63141
Gossow, Mrs. Geret, 3029 Flamingo Dr.
Hammes, Mrs. Roman, 505 Concordia
Hanlon, Mrs. Russell, 2616 Brookridge La.
Hetlage, Mrs. Louis, 5 Sunset Dr., Troy 63379
Hurd, Mrs. Ronald, 115 S. Cardinal Lane
Keller, Mrs. Robert, 712 Parr, Wentzville 63385
Kister, Mrs. George, 236 Thomas
Lensenmeyer, Mrs. Charles, 445 Nantucket
Muenster, Mrs. Vincent, 29 Shawnee
Perna, Mrs. Vincent, 14 Rio Vista
Poggemeier, Mrs. William, 140 Prairie Haute
Roach, Mrs. Edward, 2520 Bolton
Roter, Mrs. Alex, 11223 Tureen, St. Louis 63141
Rother, Mrs. Paul, 7 Elmwood Park
Schneider, Mrs. Thomas, 3208 W. Adams
Schneider, Mrs. Vincent, 2207 W. Adams
Shuetz, Mrs. Alfred, 904 Indian Hills Dr.
Smoller, Mrs. Martin, 14 Colonial Hills Pkway, Creve Coeur 63141
Soucy, Mrs. John, 4 Weldon Spring Heights
Tassi, Mrs. Albert, 6 Westminster
Thiele, Mrs. Otto, 3100 W. Adams
Towers, Mrs. Orville W., Route 1, Box 1
Vart, Mrs. Gary, 2620 Park Ave.
Westerfeld, Mrs. Roy, 32 Ayshire, Route 4
Wipfler, Mrs. Earl, 405 Duckett Pl.

ST. LOUIS CITY
(St. Louis)

Abell, Mrs. Oliver, III, 6449 Wydown 63105
Allen, Mrs. Willard M., 12538 Conway Rd. 63141
Arneson, Mrs. Axel N., 6314 Waterman 63130
Arnot, Mrs. John P., 523 Gatehill Lane, Ballwin 63011
Babka, Mrs. Joseph J., 3845 Federer Pl. 63116
Backer, Mrs. Matt H., Jr., 101 Flamingo Dr. 63123
Barden, Mrs. Frank W., 41 Beaver Dr. 63141
Bartlett, Mrs. Robert W., 6459 Wydown 63105
Bartlett, Mrs. Willard, Jr., 6345 Ellenwood 63105
Bartlett, Mrs. Willard, Sr., 53 Westmoreland Pl. 63108
Bartnick, Mrs. Mitchell L., 6476 Eichelberger 63109
Becker, Mrs. Stanley C., 11959 Emerald Green Dr. 63141
Bell, Mrs. Robert M., 35 Glen Rd. 63119
Benjamin, Mrs. Durand, 7340 Navarre Circle 63123
Bilsky, Mrs. Nathan, 2 Somerset Downs 63124
Bindbeutel, Mrs. Arthur H., 3953 Holly Hills 63116
Bircher, Mrs. John L., 3932 Federer Pl. 63116
Boemer, Mrs. Lilburn C., 49 Clermont La. 63124
Bohrer, Mrs. Harry C., 4112 Flora Pl. 63110
Boveri, Mrs. Joseph C., 8201 Fendale Dr. 63123
Boyd, Mrs. Arthur M., 6556 Delor Ave. 63109
Bradley, Mrs. Frank R., 7404 Oxford Dr. 63105
Brennan, Mrs. George A., 10546 Hanford 63128
Brennan, Mrs. Robert Alexis, 6030 Highfield Rd. 63109
Broun, Mrs. Goronwy Owen, Jr., 6359 Waterman 63130
Brown, Mrs. Clyde O., 7419 York Dr. 63105
Brown, Mrs. E. Eugene, 7508 Cromwell Dr. 63105
Brown, Mrs. James Barrett, 710 S. Hanley Rd. 63105
Brown, Mrs. Seymour, 2 Ricardo La. 63124
Bruns, Mrs. Kenneth, 1 Salem Estates Dr. 63124
Budd, Mrs. John J., Jr., 501 Overhill Dr. 63130
Burroughs, Mrs. W. H., 7327 Pershing 63130
Burst, Mrs. Donald O., 61 Trent Dr. 63124
Byrne, Mrs. John Edward, 6465 Westway 63109
Cannon, Mrs. Edward M., 20 Braircliff 63124
Cannon, Mrs. William J., 43 Clermont La. 63124
Cappel, Mrs. Powell B., 27 Old Westbury La. 63119
Carney, Mrs. Joseph E., 6625 Pernod Ave. 63139
Carroll, Mrs. George A., 7831 Delmar Blvd. 63130
Cavanagh, Mrs. Denis, 12 Ridgetop 63117
Cherre, Mrs. Charles J., 10 Ridgetop 63117
Ciapciak, Mrs. Stanley J., 30 Log Cabin Dr. 63124
Clark, Mrs. Clarence L., 705 Questover 63141
Conrad, Mrs. Adolph H., Jr., 9 Dromara Rd. 63124
Correnti, Mrs. Nicholas A., 6617 Itaska 63109
Costa, Mrs. Dominic V., 10 Devondale La. 63131
Crossman, Mrs. Robert W., 1509 Holly Dr. 63119
Daake, Mrs. John W., 48 Portland Pl. 63108
Dalton, Mrs. Arthur R., 13133 Conway & Mason Rd. 63141
Danforth, Mrs. William H., 7 Black Creek Lane 63124
Dash, Mrs. Udaya N., 1 Winding Brook La. 63124
Dewald, Mrs. Paul A., 60 Conway La. 63124
Diehr, Mrs. Alvin H., Park Tower Apts. 63105
DiLeo, Mrs. Senatro W., 34 Ridgetop 63117
Donahoe, Mrs. James L., 7336 Princeton, University City 63130
Dorton, Mrs. Robert K., 12065 Heatherdance 63131
Drews, Mrs. Robert C., 7361 Cornell Ave. 63130
Dreyer, Mrs. Carl Joseph, 45 Glen Rd. 63119
Dripps, Mrs. Roy C., 7824 Keswick Pl. 63119
Eades, Mrs. Dee W., 6 Kingsbury Pl. 63112
Eagleton, Mrs. Mark D., 22 Carrswold 63105
Edwards, Mrs. Joseph C., 610 W. Polo Dr. 63105

Egan, Mrs. Robert C., 556 Oak Haven Lane 63141
Eigel, Mrs. Edwin G., 3654 Flora Pl. 63110
Ernst, Mrs. Edwin C., 2 Schultz Rd. 63122
Feller, Mrs. Harold H., 5834 Bermuda Rd. 63121
Finn, Mrs. Murray Eugene, 47 Portland Pl. 63108
Fish, Mrs. Virgil D., 2500 Town & Country La. 63131
Fitzgerald, Mrs. Leo P., 7219 Cornell Ave. 63130
Fitzgerald, Mrs. William T., 6425 Rhodes 63109
Flotte, Mrs. Bernard H., 6 Lila Lane, Florissant 63030
Ford, Mrs. Lee T., Jr., 45 Green Acres 63137
Franklin, Mrs. Max S., 7536 Buckingham Dr. 63105
Fries, Mrs. Armand D., 11 W. Geyer La. 63131
Fries, Mrs. John, 106 Frontenac Forest 63131
Furla, Mrs. Gus John, 57 Broadview Dr. 63105
Gagliardo, Mrs. Joseph, 70 E. Ladue Estates 63141
Gandlmayr, Mrs. Jack M., 13600 Peacock Farm Rd. 63141
Gantner, Mrs. George E., Jr., 233 Woodbourne Dr. 63105
Gantz, Mrs. John A., 6106 Willow Bend 63123
Glaser, Mrs. Martin J., 3550 Hawthorne Blvd. 63104
Glick, Mrs. Harry N., Mason Rd., Route 13 63122
Goldman, Mrs. Melvin L., 8650 Barby La. 63124
Gomez, Mrs. Cesar A., Jr., 18 Havenview Dr. 63141
Grebel, Mrs. Clement B., 58 Grantwood Lane 63123
Green, Mrs. William R., 10311 N. Sunswept 63141
Greiner, Mrs. Theodore, 7507 Washington 63130
Gresick, Mrs. Robert J., 11 Coach-N-Four La. 63131
Grogan, Mrs. Frank M., 4166 Flora Pl. 63110
Gunn, Mrs. Walter T., 6742 Itaska 63109
Haddock, Mrs. James N., 111 Firwood Dr. 63119
Haeberle, Mrs. Frederick S., 5351 Delmar, Masonic Home 63130
Hagebusch, Mrs. Omar E., 16 Covington La. 63132
Hall, Mrs. Preston C., 39 Woodcrest Dr. 63124
Hammond, Mrs. John J., 412 Medina Dr. 63122
Harkins, Mrs. William M., 7 Kingsbury Pl. 63112
Harris, Mrs. Solon P., 7138 Maryland 63130
Harrison, Mrs. Lee B., 44 Ridgemoor Dr. 63105
Hassett, Mrs. Henry A., 4440 Lindell 63108
Haynes, Mrs. Pugh, 8006 Gannon 63130
Henderlite, Mrs. John W., 11927 Spruce Haven Ct. 63141
Henschel, Mrs. Eugene V., 55 Broadview Dr. 63105
Hertel, Mrs. Ronald C., 122 Frontenac Forest 63131
Hicks, Mrs. Robert S., 733 Sherwood Dr. 63119
Hilbert, Mrs. Paul H., 5701 Pernod Ave. 63139
Hogan, Mrs. Patrick C., 9039 Laurel Crest Dr. 63126
Hollo, Mrs. Vencel W., 5925 Lindell 63112
Hutchinson, Mrs. William B., 15 Portland Dr. 63131
Jensen, Mrs. Joshua E., 3 Brazillian Ct. 63124
Jones, Mrs. Otey S., 2010 Longfellow Blvd. 63104
Jost, Mrs. Charles A., 2 Bellerive Acres 63121
Karandjeff, Mrs. A. D., 48 Lake Forest 63117
Karl, Mrs. Michael M., 14 Thorndell 63117
Kelley, Mrs. Robert W., 5371 Waterman Ave. 63112
Kendig, Mrs. John H., 841 Rolfe Dr. 63122
King, Mrs. Samuel J., 5000 S. Broadway 63111
Klein, Mrs. Harry A., 2 Sunswept Dr. 63141
Klein, Mrs. Saul J., 11 Huntleigh Downs 63131
Klippel, Mrs. Bernhardt W., 52 Fair Oaks 63124
Kloecker, Mrs. Richard J., 1022 Hampton Pk. 63117
Kluegel, Mrs. William A., 2845 Gravois Ave. 63118
Kneal, Mrs. Ellsworth, 725 S. Skinner 63105
Knight, Mrs. Franklin P., 11465 Fairlane Ct. 63136
Knight, Mrs. William A., Jr., 12 Braircliff 63124
Komanetsky, Mrs. William, 7447 Sharp Ave. 63116
Koon, Mrs. Bernard T., 2623 Gurney Ct. 63110
Kountz, Mrs. William B., 2629 Gurney Ct. 63110
Kowert, Mrs. Edward H., 330 Planthurst Dr. 63119
Krojanker, Mrs. Rolf J., 1060 Purdue 63130
Kronemer, Mrs. Norton S., 703 Westwood Dr. 63105
Kuhlman, Mrs. Robert E., 12 Upper Barnes Rd. 63124
Langsdorf, Mrs. Herbert S., 3681 Alberta Ave. 63116
Lau, Mrs. Luis F., 1467 Reauville Dr. 63122
Laux, Mrs. France A., 287 Ridge Trail Dr., Chesterfield 63017
Lembeck, Mrs. Joseph A., 4103 Flora Pl. 63110
Lerwick, Mrs. E. R., 40 Portland Pl. 63108
Lewis, Mrs. J. Eugene, Jr., 7129 Kingsbury Ave. 63130
Lohr, Mrs. Curtis H., 300 S. Grand 63103
Lottes, Mrs. J. Otto, 1028 Winwood Dr. 63124
MacDonald, Mrs. William O., 63 Briarcliff 63124
Machek, Mrs. Otaker, 16 Carswold 63105
Macnish, Mrs. James M., 229 Bompart 63119
Malles, Mrs. A. Conrad, 69 Wood Oaks Trail 63124
Mathae, Mrs. George H., 3167 S. Grand Blvd. 63118
McMahon, Mrs. Alphonse, 5 Covington Meadow 63132
Mehan, Mrs. Donald J., 34 Gadwin 63124
Mendonsa, Mrs. Lawrence E., 138 Ridgecrest Dr., Chesterfield 63017
Merenda, Mrs. Sam J., 45 Berry Rd. Pk. 63122
Merklin, Mrs. Anton L., 1 Fordyce Manor 63131
Mestres, Mrs. Hugh M., 12329 Federal Rd. 63131
Meyerhardt, Mrs. Milton H., 665 S. Skinker, 63105
Miskovsky, Mrs. Emil F., 630 S. New Ballas Rd. 63141
Montgomery, Mrs. Austin F., 18 Southcote Rd. 63144
Morfit, Mrs. John C., 7627 Wydown Blvd. 63105
Moskop, Mrs. Peter G., 1105 Holly Hills Ave. 63111
Mowrey, Mrs. William O., 7071 Lindell 63130
Mueller, Mrs. Wilbur K., 1160 S. McKnight Rd. 63117
Muether, Mrs. R. O., 19 Country Life Acres 63131
Neilson, Mrs. Arthur W., 6349 Alexander Dr. 63105
Nemec, Mrs. Stanley S., 2870 S. Lindbergh 63131
Neun, Mrs. William F., 5862 Delor 63109
Newton, Mrs. William T., 1218 Glen Vista 63122
Nye, Mrs. Robert S., 4910 Broadway S.
Obermeyer, Mrs. Charles G., 3957 Holly Hills Blvd. 63116
O'Neal, Mrs. Lawrence W., 9975 Holliston Ct. 63124
Oppenheimer, Mrs. Henry E., 9444 Old Bonhomme Rd. 63132
Orenstein, Mrs. Joseph M., 417 Jackson Ave. North 63130
O'Sullivan, Mrs. George A., 6181 Lindell 63112
Parsons, Mrs. Richard P., 649 Mosley Rd. 63141
Patrick, Mrs. Roman L., 13109 Four Poster Ct. 63141
Peden, Mrs. Joseph C., Jr., 51 Fair Oaks 63124
Peeler, Mrs. J. O., 10000 Knoll Crest Ct. 63136
Pernoud, Mrs. Flavius G., Jr., 841 Audubon Dr. 63105
Pernoud, Mrs. Michael F., 51 Frontenac 63131
Powell, Mrs. Earl A., 78 Lake Forest 63117
Powers, Mrs. Pierce W., 4 Crestwood Dr. 63105
Pyne, Mrs. Herbert S., 5320 Mardel 63109
Rainey, Mrs. Robert, 5165 Lindell Blvd. 63108
Raybuck, Mrs. H. E., Jr., 22 Rolling Rock Ct. 63124
Rendleman, Mrs. George F., 532 Midvale 63130
Rendleman, Mrs. George R., Jr., 2 Vista Brook 63124
Ritter, Mrs. Hubert A., 26 Briarcliff 63124
Rodriguez, Mrs. U. R., 10408 Daybreak Dr. 63128
Roy, Mrs. Joseph A., 55 Berkshire 63117
Royce, Mrs. Robert K., 766 High Hampton Rd. 63124
Ryan, Mrs. Robert E., 1 West Point Lane 63131
Sanders, Mrs. Robert D., 4214 Flora Pl. 63110
Sante, Mrs. Leroy, 308 Orchard Ave. 63119
Schaper, Mrs. Ernest H., 1473 Reauville Dr. 63122
Scheer, Mrs. George E., 53 Berkshire 63117
Schmidt, Mrs. Edwin H., 10240 Schuessler Rd. 63128
Schweiss, Mrs. John F., 1414 Westwind Dr. 63131
Sciortino, Mrs. Gaspare, 1019 Laval Dr. 63132
Scott, Mrs. Elwin Powers, 12718 Post Oak Rd. 63131
Sevastianos, Mrs. Aristides, 52 E. Ladue Estates Dr., Creve Coeur 63141
Sexton, Mrs. Daniel L., 14 Crestwood Dr. 63105
Shaw, Mrs. Edward J., 3723 Delor 63109
Sherwin, Mrs. Charles F., Lonedell 63060
Sherwin, Mrs. Charles S., 3971 Flora Pl. 63110
Simon, Mrs. David, 7809 Gannon 63130
Simon, Mrs. Jerome I., 12 Westridge Ct. 63124
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This page is provided for your convenience in recording names and addresses of new members of your county society, address changes of members you know and other notations you may wish to make.

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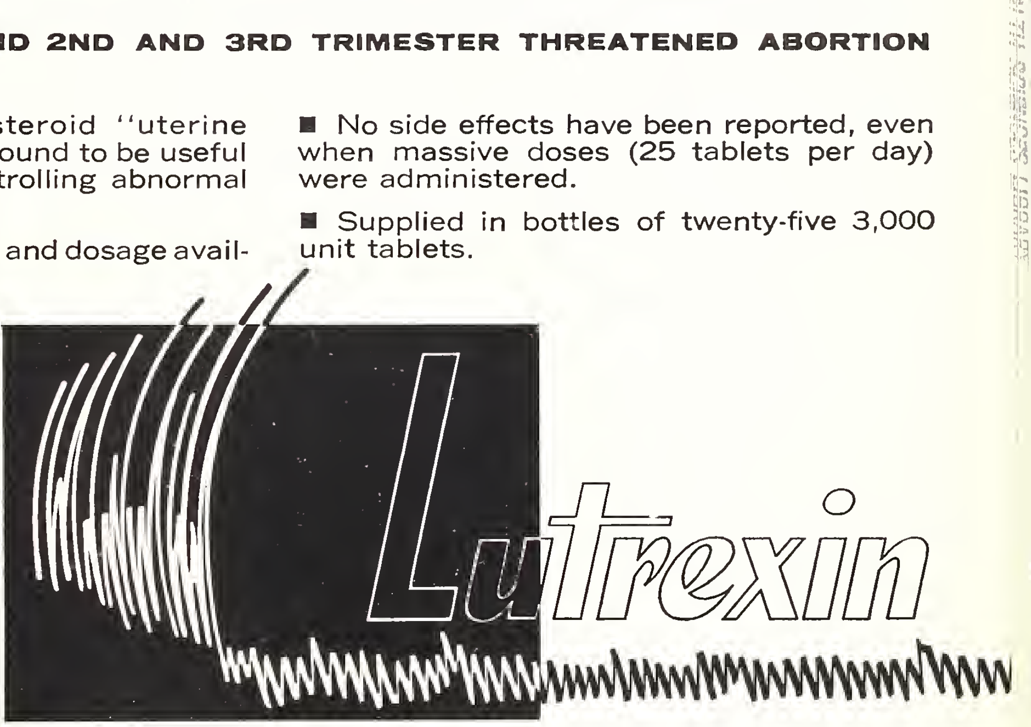

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Missouri Medicine

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Announce Limitations On Medicaid Program

A number of limitations on ie services provided to Mediaid Program recipients in Misouri have been announced by Ir. Proctor N. Carter, Director the Missouri Division of Welre.

In announcing the new limitaons, Mr. Carter pointed out iat they were made necessary y a reduction in appropriations oted for the current fiscal year y the Missouri General Asembly.

Mr. Carter told the news iedia of the state that last year he Legislature appropriated 28,112,000 from state funds for ie program. Meeting in special ession in June, the General Asembly voted $25,000,000 for the rogram, a reduction of $3,112,00 from last year's appropriaon. The state fund reduction lso meant a loss of $3,440,000 Federal money, meaning that ie program will have $6,552,00 less money than a year ago.

Limitations as announced by Ir. Carter for the program are follows:

1. The Division of Welfare ill not pay for non-urgent or ective services or procedures, ther medical or surgical.
2. The Division of Welfare aximum cut-off point for all es will be reduced on a perentage basis. The reduction is xpected to average about 12 er cent.
3. The Division of Welfare ayments of Medicare deductiles and co-insurance will be reuced also on a percentage basis.
4. Division of Welfare payents for physicians visits to a elfare patient in a hospital is mited to a maximum of 14 ays per hospital admission.
5. Division of Welfare will pay r emergency x-ray and emerency laboratory service only whether performed in the phycians office, out-patient hostal, or outpatient hospital clin or other clinic.)
6. The Division of Welfare ill not pay for injections or inected medications except for ie following:
   a. Preventive LA Penicillin for Rheumatic Fever
   b. Preventive gamma globulin
   c. Immunizations (not to include influenza or cold shots)
   d. Other injections required because of acute or emergency situations.

In a letter sent to participating physicians announcing the limitations the Division of Welfare added the following statement: "In order to help control utilization by welfare patients, we are asking that the physician make a note on the face of the claim form whenever he feels the patient may be making unnecessary calls at the physician office. As soon as possible the forms will be revised to include a space for the physician to check indicating when he feels the patient is over-utilizing. If the physician will do this, we will make every effort to see that the situation is corrected. We realize that over-utilization often lies with the patient rather than the physician."

DRUGS

The Division of Welfare has deleted a number of drugs from the Drug Vendor Formulary which became effective July 10. A list of the deleted drugs has been sent to all participating physicians as well as to all participating pharmacies in Missouri.

DENTISTS

The Division of Welfare will no longer pay for partial or full plates for Medicaid recipients. Treating dentists were told not to start any extractions to prepare a mouth for full or partial dentures after June 30, because the dentures will not be authorized for payment under the program.

HOSPITALS

The following limitations on inpatient hospital coverage became effective on July 1.

1. The Division of Welfare payment in behalf of welfare patients under age 65 shall not exceed 14 days for any one admission. There will be no extension.
2. Division of Welfare payment in behalf of welfare patients over age 65 who do not have Part A of Title 18 (Medicare) coverage because of insufficient quarters of Social Security-covered-employment shall not exceed 14 days per admission.
3. Division of Welfare payment in behalf of welfare patients over age 65 who have Part A of Title 18 coverage and who are in their coinsurance of lifetime reserved days shall not exceed 14 days of coinsurance or lifetime reserve coinsurance per admission.
4. Division of Welfare payment will not be made for any part of a hospital stay unless such admission and stay can be proven medically necessary and can be so verified by a Division of Welfare Medical Consultant.
5. Division of Welfare payment will not be made on any part of a readmission unless it is medically necessary and preceded by a bona fide discharge.
6. Division of Welfare payment will not be made on any hospital stay declared "non-covered level of care" or "custodial" or otherwise rejected or denied by the Title 18 program.
7. Effective July 1, 1970 all extensions of Title 19 coverage that have been issued beyond the 21st day are automatically reduced to not exceed 14 days beyond July 1, 1970.
8. Patients admitted prior to July 1, 1970, and still hospitalized will have their coverage for only 14 days after June 30, 1970.
9. If the welfare patient remains in the hospital beyond the 14th day of Title 19 coverage, payment for the days beyond 14 is the responsibility of the patient and/or his family.
10. Hospital vendor payment in behalf of patients under 65 years of age or patients 65 and over who have exhausted their Medicare (Title 18A) benefits will be computed by whatever method is currently used for computing Title 18 payments for the hospital concerned.

OUTPATIENT PROGRAM

1. Reimbursement for outpatient hospital services involving emergency room or clinic visits or other outpatient facili-

(Continued on Back of Page)

CBS Answered

Four physicians, representing the medical profession in the Kansas City area, appeared on KCMO-TV, Channel 5, on July 7, in a 30-minute rebuttal to the CBS programs "Health in America." The local telecast was arranged thru negotiations between a special committee of the Medical Council of the Greater Kansas City Metropolitan Area and E. K. Hartenbower, Vice President and General Manager of KCMO & KCMO-TV. The program, titled "The AMA Speaks Out," was presented at 9:00 p.m.

Appearing on the program were: Leslie E. Becker, M.D., Secretary of the Kaw Valley Medical Society, a component society of the National Medical Association; Hector W. Benoit, Jr., M.D., AMA Delegate from Missouri and a Past President of the Missouri State Medical Association; Robert M. Mathews, M.D., Past President of the Johnson County (Kansas) Medical Society; and Wallace P. McKee, M.D., President of the Jackson County (Missouri) Medical Society.

Allen D. Smith, Executive Secretary of both the Jackson County Medical Society and the Area Medical Council, and Bert Coons of the KCMO News Department served as interrogators.

The physician-panelists agreed with the CBS programs that there are serious problems in the American health care system. However, they criticized CBS for giving "only one side of the story" and then outlined the many positive steps which the medical profession is taking in an effort to solve the problems.

MEDICAID (Continued)

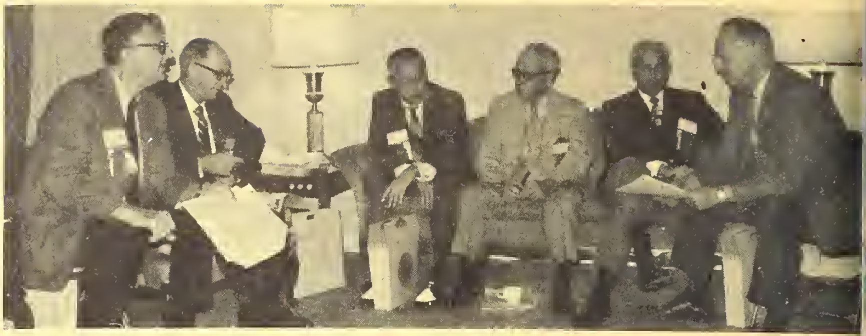
ties will be limited to $5.00 per visit to include necessary outpatient hospital services and supplies.

2. Division of Welfare payment will continue to be limited to one outpatient hospital visit per day, regardless of the number of clinics visited.

3. Division of Welfare payment will be limited to emergency diagnostic x-rays and emergency laboratory procedures.

NURSING HOMES

The Division of Welfare announced a 12 per cent reduction of payments to Missouri nursing homes for Medicaid patients.



MISSOURI CAUCUS—Delegates and officers of the Missouri State Medical Association are shown here during a caucus held in the Missouri room at the Palmer House Hotel in Chicago during the AMA Annual Meeting in late June. In the photo, left to right, are Delegates Arthur W. Neilson, St. Louis; Loren Washburn, Versailles; and Hector W. Benoit, Jr., Kansas City; President-elect Gerald L. Miller, Kansas City; President Joseph L. Fisher, St. Joseph; and Delegate Stanley Peterson, Springfield.

Elect Dr. Sisk

James C. Sisk, M.D., St. Louis, has been elected the new president of the St. Louis Blue Shield Plan, succeeding Raymond O. Muether, M.D., St. Louis.

Dr. Sisk, 47, a specialist in dermatology, received his M.D. degree from Washington University School of Medicine in 1946. He is past-president of the St. Louis County Medical Society and currently serves as Missouri State Medical Association alternate delegate to the American Medical Association.

Dr. Muether retires as president of St. Louis Blue Shield after serving in the post since 1960. A member of the Blue Shield Board of Trustees and its Executive Committee since the Plan's inception in 1945, Dr. Muether also served as secretary and as vice-president before being named president. He is a former president of the Missouri State Medical Association.

John D. O'Brien has been appointed Acting Executive Director of St. Louis Blue Shield Plan. Mr. O'Brien succeeds his brother, the late Thomas R. O'Brien, in the post.

Healing Arts Board Changes Rules

The Missouri State Board of Registration for the Healing Arts has changed its rules and regulations to comply with a recent ruling by the Attorney General that the requirement of citizenship for licensure for physicians and surgeons in Missouri is unconstitutional.

The Board will permit noncitizens who are otherwise qualified to take the state examination. At least one year of approved internship is required before making application. Anyone desiring to take the examination should contact the office of the State Board, giving educational background and training received in the United States. A special examination has been set in Jefferson City September 18.

The Board also has continued its rule of permitting graduates of foreign medical schools who are licensed in other states and are either Board certified or Board eligible to make application for license by reciprocity. Application forms will be forwarded by the Board on request.

The Board has changed its rules regarding the issuance of temporary licenses. Such licenses will now be issued only to physicians who are trainees in programs approved either by the AMA or AOA. This does not include instructors or professors.

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AMA House of Delegates Considers Many Resolutions; Holds First Public Forum

Meeting behind closed doors and elaborate security precautions, the American Medical Association House of Delegates considered a record 201 items of business from June 21 through June 25, 1970 in Chicago. It was the first uninterrupted annual House session since 1967.

The Missouri State Medical Association was well represented at the meeting with all Delegates and Alternates present along with Association officers and members. Delegates include Arthur W. Neilson, St. Louis; Hector W. Benoit, Jr., Kansas City; J. Loren Washburn, Versailles; and Stanley Peterson, Springfield. Alternates are James C. Sisk, St. Louis County; Rae W. Froelich, Lebanon; Robert W. Kelley, St. Louis; and Hugh Stephenson, Columbia. Dr. Neilson was chairman of Reference Committee B and Dr. Benoit served as a member of a special reference committee which held a public forum for consumers on Sunday afternoon, June 21.

In addition, Radiologist Wendell Scott of St. Louis was the Delegate for his section and served as chairman of Reference Committee H. Officers of MSMA in attendance included President Joseph L. Fisher, St. Joseph; President-elect Gerald L. Miller, Kansas City; and Council Chairman Walter Gunn, St. Louis. Mrs. William Walker of Springfield, President of the MSMA Woman's Auxiliary, was in attendance along with a number of Missouri Auxiliary members.

The Missouri delegation introduced four resolutions which were considered by Reference Committees and the House of Delegates.

Resolution #27 called for the AMA to develop and accumulate factual data which clearly relate the increased cost of health care to the actual items which have caused the greatest increase and see that this information is disseminated to the public.

Upon the recommendation of the Reference Committee, the House voted to refer the resolution to the Council on Medical Service.

Resolution #28 called for the American Medical Association to set up the mechanism for negotiation of not only professional fees, but also the rules, regulations and procedures that establish the conditions under which the physicians render the services.

The Reference Committee, in its report to th House, pointed out that it had been advise that legal implications of this resolution have n been fully explored, and the committee believe that careful consideration must be given to a the possible ramifications of establishing methods for negotiations on behalf of physicians.

The Reference Committee's recommendatio that Resolution #28 be referred to the Board o Trustees for further study was adopted.

Resolution #29 pointed out that the Department of Health, Education and Welfare by it action has in effect nullified Utilization Revie Committees. It called on the AMA to protest thi "unlawful invasion in medical practice" an resolved "That the American Medical Association appeals to the courts to stop this nefariou interpretation of the Medicare Act, in allowin clerks and nurses to interpret what shall constitute questions of medical care."

The Reference Committee recommends th following substitute for Resolution #29 whic was adopted by the House:

> *Resolved,* That the AMA has been informed that som fiscal intermediaries acting for the Department o Health, Education and Welfare under Part A of th Medicare law have countermanded the recommendation of utilization review committees, and be it further
>
> *Resolved,* That the Association make every effort t assure satisfactory administration of the Part A Medicar program.

Resolution #85, introduced by the Missour delegation, called for the establishment of a Public Relations Committee by the AMA to carr out an ongoing program to see that the public sees "the true profile of the Medical Profession."

The Resolution was considered by the Reference Committee along with a Board of Trustees Report concerning "A Communications Program for the 1970's" and five other resolutions on the same subject.

The Reference Committee pointed out that the Board of Trustees report, which is already being implemented, includes essentially all of the recommendations described in the five resolutions. The Reference Committee recommended that the Board of Trustees report be adopted and that the five resolutions be referred to the Board of Trustees. The House approved both recommendations.

The House adopted a $40 increase in AMA dues for next year to a total of $110. The Board of Trustees had suggested an $80 increase. Also, the House voted to change the by-laws giving itself the full responsibility concerning Association dues. In the past, the amount of AMA dues was prescribed by the Board for adoption or rejection by the House.

For the first time in its history, the House appointed a special reference committee to hold a public forum at which individuals and representatives of groups could present their views on medical and health care. The Committee heard three hours of testimony. From the Committee's report, the House adopted the following recommendations:

"That consideration be given by the Board of Trustees to the creation of a multi-ethnic advisory committee on health care problems of minority groups. That the House reaffirm Resolution #62, Annual Convention, 1969, which states in part: 'It is a basic right of every citizen to have available to him adequate health care' . . . and that 'the medical profession, using all means at its disposal, should endeavor to make good medical care available to each person.' That the AMA Advisory Committee on Health Care of the American people be invited to participate in reference committee hearings of this type if they are held in the future."

After long debate before a reference committee and on the floor of the House, Delegates adopted the following statement on abortion:

> Whereas, Abortion, like any other medical procedure, should not be performed when contrary to the best interests of the patient since good medical practice requires due consideration for the patient's welfare and not mere acquiescence to the patient's demands; and
>
> Whereas, The standards of sound clinical judgment, which, together with informed patient consent should be determinative according to the merits of each individual case; therefore be it
>
> *Resolved*, That abortion is a medical procedure and should be performed only by a duly licensed physician and surgeon in an accredited hospital acting only in conformance with standards of good medical practice and after consultation with two other physicians chosen because of their professional competence, and within Medical Practice Act of his State; and be it further
>
> *Resolved*, That no physician or other professional shall be compelled to perform any act which violates his good medical judgment. Neither physician, hospital nor hospital personnel shall be required to perform any act violative of personally held moral principles. In these circumstances, good medical practice requires only that the physician or other professional personnel withdraw from the case so long as the withdrawal is consistent with good medical practice."

(Due to space limitations, the full report of the Reference Committee concerning the matter of abortion could not be printed in Missouri Medicine. Any member of MSMA who desires a complete copy of the Reference Committee report may secure one by writing to the Association office.)

One of the longest debates of the meeting involved creating a body for long-range planning and development. A standing committee of the House, the Council on Long-Range Planning and Development, was created. It will include nine members. Four will be appointed by the Speaker (two from the House and two from AMA membership at large) and four will be appointed by the Board (two members of the Board and two from AMA membership at large). The ninth member will be appointed by the President of SAMA. The Council is to submit reports to the House at each regularly scheduled convention.

The House also acted on the recommendations of the earlier Committee on Planning and Development (Himler Committee). A number of recommendations were adopted by the House, sometimes after extensive revision. (Any member of MSMA who desires a complete copy of the revised recommendations may secure one by writing to the Association office.)

The House approved a Board report stating that professional liability insurance protection is essential so that physicians may continue to provide needed medical care to the public. "It has been concluded," the report said, "that the best way to provide such assurance is on a collective, rather than an individual, basis under programs jointly sponsored by the AMA and the respective state medical association. . . . Minimum standards for an effective sponsored program are being developed" and the Professional Liability Committee of the Board "is seeking, with the insurance industry, a means for instituting qualified insurance programs under such joint sponsorship with state associations which elect to participate."

The following statement on nursing was adopted:

"The American Medical Association recognizes the need for, and will support efforts to increase, the number of nurses; recognizes the need for, and will facilitate expansion of, the role of the nurse in providing patient care; encourages and supports all levels of nurse education; will promote and influence the development of a hospital nursing service, similar to a medical care service, under the leadership of a chief of professional service, aimed at increased involvement in direct medical care of the patient; supports the concept of a physician-led health team; and will seek constructive collaboration with the total nursing community."

The House also resolved that "The AMA undertake a thorough investigation of a method to bring allied professions into a collaborative relationship with the AMA such as the establishment of a new class of membership; "and that consideration be given to preparing 'essentials for these categories of the allied health personnel groups which do not have them, and that the opportunity for vertical and horizontal mobility be considered in determining these 'essentials.'"

The House took a number of important actions in connection with drugs. Among them are the following:

That the AMA "encourage Committees on Pharmacies and Therapeutics in each hospital to review drug reactions and related problems and to take appropriate control measures and to initiate informational programs. That the AMA seek passage of legislation for control of the manufacture and distribution of barbiturates and amphetamines. That the AMA express the concern of the medical profession that consumer protection be assured through more adequate surveillance of proprietary drug advertisements by private organizations and more effective cooperation in enforcement of applicable regulations by responsible governmental agencies. And that it is contrary to the public interest to repeal or modify anti-substitution laws and regulations in order to permit the filling of prescriptions with therapeutic agents not intended by the prescribing physician."

The AMA requested the JCAH to specify tha a Joint Conference Committee "include, wher feasible, adequate representation from com munity-based physicians elected by the medica staff." Also, that the AMA reaffirm its positio that "general practitioners should have the op portunity to practice medicine as active staf members in hospitals and should be grante privileges commensurate with their training an demonstrated abilities."

The House approved Report A of the Judicia Council which said, among other things, that "I is not in itself unethical for a physician to ow a for-profit hospital or interest therein. The us the physician makes of this ownership or interest may, however, be definitely unethical."

Also, the House directed the AMA to make a detailed and comprehensive study and analysis of the methods and requirements for reporting infant mortality statistics "by those nations that are alleged to have a lower rate of infant mortality than that of the United States."

Dr. Wesley W. Hall of Reno, Nevada was elected President-Elect of the AMA, defeating two other Trustees and one Delegate running for the position. Dr. Hall will become the 126th President of the AMA in June, 1971.

Dr. H. Thomas McGuire, Delaware, was elected Vice-President and Dr. Russell B. Roth, Pennsylvania and Dr. J. Frank Walker, M.D., Georgia, were unanimously reelected to their posts as Speaker and Vice-Speaker of the House, respectively.

Drs. John H. Budd of Ohio, Richard E. Palmer of Virginia, James H. Sammons of Texas and Kenneth C. Sawyer of Colorado were elected to fill the four vacancies on the Board of Trustees.

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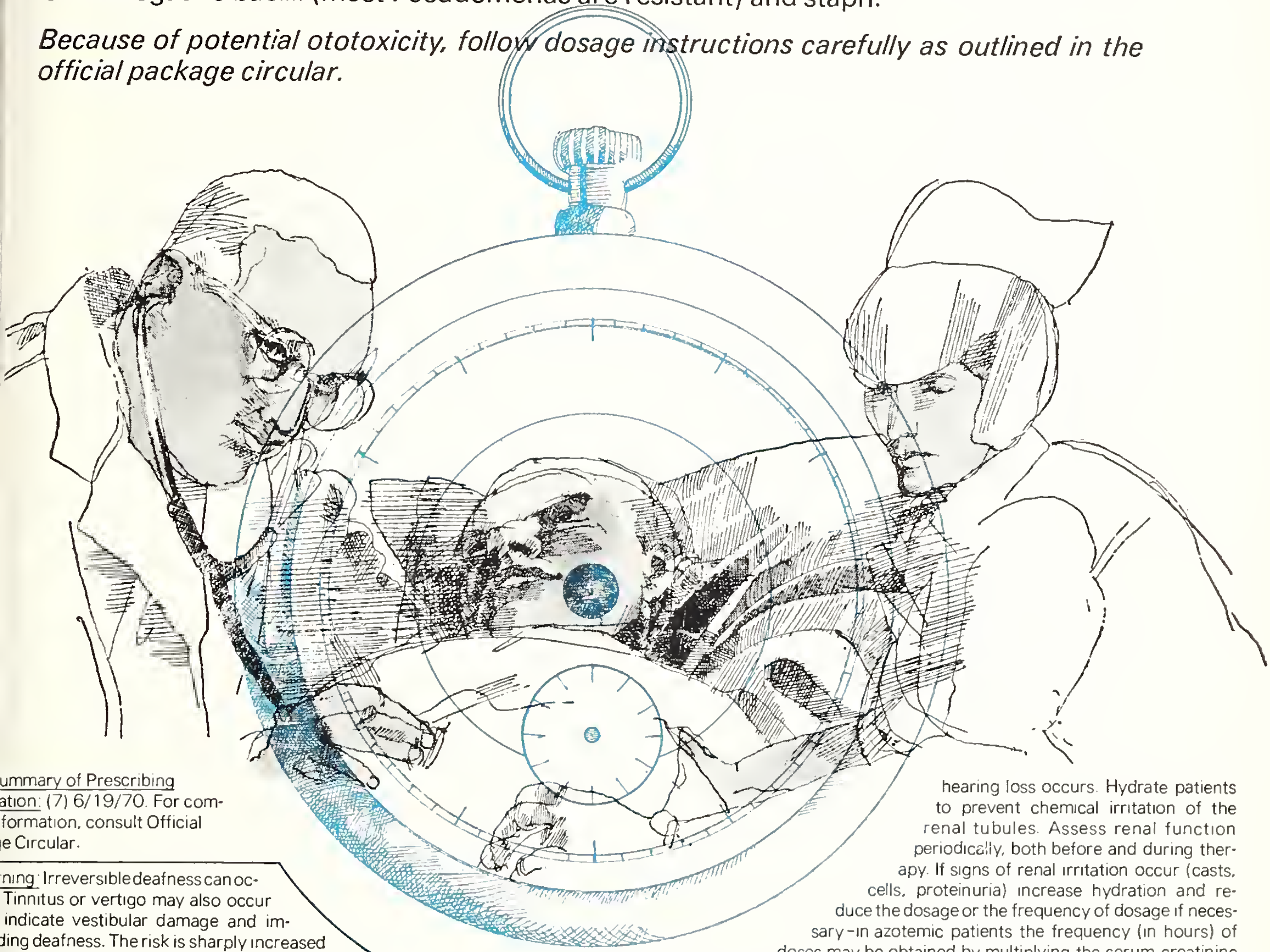

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The Council Reports

Meeting of May 23-24, 1970

Walter T. Gunn, M.D., St. Louis, Chairman, called the meeting to order. Those present were Drs. Gunn; Joseph L. Fisher, St. Joseph; Gerald L. Miller, Kansas City; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; Doyle C. McCraw, Bolivar; John N. Martin, St. Joseph; Lysle M. Bach, Hannibal; Robert A. Mayer, St. Louis; James C. Cope, Columbia; Wm. D. Bradshaw, Clinton; R. Allen Chandler, Kansas City; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; E. T. Hansbrough, Poplar Bluff; Arthur W. Neilson, St. Louis; J. Loren Washburn, Versailles; Hector W. Benoit, Jr., Kansas City; William H. Danforth, St. Louis; Richardson K. Noback, Kansas City; Rae W. Froelich, Lebanon; J. F. McDonnell, Kansas City; Richard Kloecker and Mr. Charles Rand Boyle, St. Louis; Messrs. John W. Noble, Kennett; Allen Smith, Kansas City; Hollister Smith, St. Louis; Edgar Mothershead, St. Louis; Gary Schnedler, Springfield; Ray McIntyre, Tom Fox, Bob Carroll and Royal O. Cooper, Staff, Jefferson City.

The Chairman requested approval of the minutes of the two previous Council Meetings held on April 1 and April 5, 1970. On motion, duly seconded, the minutes were approved as printed.

REPORT OF THE TREASURER

Dr. Franklin reported that no formal financial report would be presented since many of the bills from the Annual Session have not been received. He stated that the dues are coming in well and the MSMA is in good financial position to carry on its programs. It was moved by Dr. Bradshaw and duly seconded that the Treasurer's Report be accepted. The motion carried.

REPORT OF THE EXECUTIVE SECRETARY

Mr. McIntyre said that thank you notes had been received from both Mrs. Joseph L. Fisher and Mr. Noble for the floral arrangements sent to them during their hospitalizations.

He stated that Dr. Vernon Wilson of the University of Missouri has accepted a position with HEW which will be directly under Dr. Egeberg and effective on July 1. It was moved and seconded that a congratulatory letter be sent to Dr. Wilson on his appointment. The motion carried.

Mr. McIntyre said that Senator A. M. Spradling of Cape Girardeau has been invited to be one of the featured speakers at the AMA Session in Chicago at the Conference of Presidents and officers on Sunday, June 21, at 9:00 in the Palmer House.

He also reported that during the Annual Session in Kansas City, Dr. McCraw had received a wire from the Missouri State Nurses Association regarding the AMA's position concerning the use of nurses as assistants to physicians. It was suggested that representatives of the Missouri Nurses Association and the MSMA meet to discuss mutual problems. Mr. McIntyre stated that he had met with the Executive Secretary of the Missouri Nurses Association to discuss this matter. It was agreed that the MoNA would provide a suggested agenda on points of mutual concern for a meeting with them and, possibly, the Hospital Association. A suggested agenda of discussion items has not been received to date.

Mr. McIntyre stated that Dr. Miller had contacted him a short time ago relative to appointment of an Assistant Regional Director for Health and Scientific Affairs in each of the nine HEW regions. Missouri is in Region VI. At the present time, the Regional Director of HEW in each of these regions has the job of coordinating all HEW activities on the regional level. Mr. Max Mills is the Regional Director of Region VI. Assistant Regional Directors of Health and Scientific Affairs to be responsible to the Regional Director are now being appointed. MSMA has been informed that HEW would be happy to receive recommendations for consideration.

Mr. McIntyre said that Dr. Fisher had received a letter from Dr. Francis Maple regarding the stand of the Missouri Society of Internal Medicine concerning adoption of AMA's current procedural terminology, second edition, as official medical terminology for the state of Missouri. Dr. Fisher requested Dr. Miller to report on this matter because of his close connection with Blue Shield. Dr. Miller said that the California Relative Value Study set-up has now proposed a five-digit system to replace the four-digit system. The AMA's Current Procedural Terminology has gone to the five-digit system. He stated that the Blue Plans are not in favor of this change. He pointed out that under the new coding, 3,600 procedures could be coded rather than 2,200 under the old system. Code numbers in the new system could range up to 99999 in place of the four-digit designations which provide room for 9,999 items. Dr. Miller further stated that NABSP (National Association of Blue Shield Plans) estimates that changing from a four to five-digit system would cost at least $14 million and probably up to $30 million. This cost, of course, would have to be placed on the subscribers.

After considerable discussion regarding the four- and five-digit systems, it was moved by Dr. McAlhany and seconded that the Council disapprove change to the five-digit system. The motion carried.

ALLIED DOCTORS INCORPORATED

The Chairman then called upon Dr. Richard Kloecker, President, and Mr. Charles Rand Boyle, Executive Secretary, Allied Doctors, Inc., to give the Council a brief description of their organization and its goals. They indicated that a group of St. Louis physicians and dentists have banded together to try to improve the public image of doctors. Allied Doctors, Inc. is a nonprofit organization chartered by the Secretary of State. Membership dues in the organization are $100 per year. At the present time, they have about 30 members. It was indicated that they would use spot broadcast messages on radio, articles in magazines and newspapers and, hopefully, some television. Dr. Kloecker explained that they would like to have the endorsement of the MSMA and would welcome ideas from the Council to help in attaining their goal.

Dr. Kloecker stated that Allied Doctors, Inc. had sent a brochure and letter to the physicians and dentists in the St. Louis area explaining their organization. After further discussion on Sunday and on motion, duly seconded, it was agreed that a letter be sent to Dr. Kloecker commending the group for their efforts and encouraging them to continue their activities, hopefully by working with the MSMA Commission on Public Affairs. It was further agreed that this report be referred to the Commission on Public Affairs.

The Chairman said that Dr. Kloecker had requested use of our membership addressograph plates (excluding those for St. Louis and St. Louis County) for an anticipated mailing. It was moved and seconded that their use of the addressograph plates be approved, provided the contents of the mailing are approved first by the officers of the Association. The motion carried.

CURTEMAN CASE

Legal Counsel indicated that additional time has been allowed by the Court for filing of the transcript on the Curteman Case appeal. At the present time it must be filed by August 3. However, additional time may be obtained if it cannot be filed by that date.

MATTERS REFERRED BY HOUSE OF DELEGATES

The Chairman then referred some of the resolutions passed by the 1970 House of Delegates to particular Commissions. Resolutions referred to the Commission on Public Affairs are on New Member Indoctrination and Programs for Rural Emergency Medical Services. Resolutions referred to the Commission on Continuing Medical Education and Health Manpower are Continuing Medical Education (Study Oregon Plan), Diploma Nursing Education, Interim Scientific Meeting and Health Manpower in Rural Areas. Those referred to the Commission on Medical Economics, Third Party Medicine and Governmental Relations are Improper Decisions Against Part A Medicare Patients by St. Louis Blue Cross, Utilization Review Committees, Extended Care Claim Rejections, HEW's Nullification of Utilization Review, Negotiation of Professional Fees and Recommended Study of Blue Shield Plans.

REPORT OF THE PRESIDENT

Dr. Fisher reported that Vice-President Spiro Agnew has declined the invitation to speak at the annual banquet next year in St. Louis and asked the Council for suggestions regarding a speaker. Dr. Benoit suggested Irving Page, Editor of *Modern Medicine*, New York; Dr. Miller suggested Tom Tierney of the Social Security Administration; and Dr. Hansbrough suggested Robert Myers of the Social Security Administration.

Dr. Fisher stated that Dr. E. Grey Dimond is still very optimistic about the Medical School in Kansas City. Dr. Noback said that they have been encouraged by the recommendation of the House Appropriations Committee.

Dr. Fisher then read several communications between him and Dr. Stewart of Columbia regarding the proposed Crippled Children's Treatment Center in Kirksville. Dr. William Allen then gave a brief résumé of what has taken place regarding the proposed Treatment Center since application for the Center was made approximately three years ago.

Dr. Fisher reported that he had received a communication from the National Society for the Prevention of Blindness regarding legislation to insure the use of shatter resistant lenses. A suggested bill that is being introduced in several other states was attached. It was moved and seconded that this matter be referred to the Commission on Interspecialty Medicine for report back to the Council. The motion carried.

Dr. Fisher stated that he had received a communication from the Nevada State Medical Association regarding their nomination of Wesley Hall, M.D., into candidacy for President-Elect to the AMA and asking for MSMA support.

Dr. Fisher requested Council approval of a third amendment to the Trust Indenture of the MSMA Employees' Pension Program concerning our Managing Agency Agreement with Mercantile Trust Co. National Association, St. Louis, as proposed by our legal counsel in order to meet IRS requirements. It was moved, seconded and passed to approve this requested third amendment.

JOINT MEETING

Dr. Gunn then asked Dr. Miller to give a brief report of the joint meeting held on Friday evening, May 22, with representatives of the Missouri Association of Osteopathic Physicians and Surgeons and the Missouri State Board of Registration for the Healing Arts. Dr. Miller reported the following persons were in attendance at the meeting: Drs. R. A. Michael and Wm. H. Voss and Mr. Ed Borman of the Osteopathic Association; Dr. Still and Mr. Hailey of the State Board; and Dr. Matthews, Messrs. Noble, McIntyre and Cooper and Dr. Miller of MSMA. Dr. Miller stated that he felt the meeting was a fruitful one. Continued medical education for physicians was discussed and all present were totally supportive. Out of this emerged an agreement supporting the need for a required continuing educational program and a recommendation that this philosophy be submitted for development and be brought back to this liaison committee for further assessment.

The General and Professional Corporation Laws in Missouri, under which various groups of physicians are incorporated, were discussed. Dr. Miller reported that since few of the people present were knowledgeable regarding these laws, it was agreed that the two Association Secretaries and their legal counsels research this matter and report at the next meeting of the liaison group.

Dr. Miller stated that the following matters involving possible health legislation were discussed:

1. *Statute of Limitations for Malpractice Suits*—it was decided to recommend no change in the present Missouri law, but to be in a position to properly react in case any effort is made to introduce legislation in the next session to change the law.

2. *Change in Present Abortion Law*—The MSMA House of Delegates 1970 action was discussed, but no group action taken on this item.

3. *Citizenship Requirement for Physician Licensure*—Dr. Miller reported that the Attorney General of Missouri had set forth an opinion declaring the citizenship requirement unconstitutional and had stated that the State Board would need to read and digest the Attorney General's opinion before acting on this matter.

4. *Population Control Measures*—No action was taken.

5. *Little Hoover Commission Recommendations Regarding State Boards*—Mr. Hailey presented his views concerning the Little Hoover Commission recommendations regarding licensing boards. It was his feeling that because the two previous commissions had submitted identical recommendations, the present Commission probably would recommend that all licensing boards be consolidated under one executive director which could produce many problems. At the present time, there are 14 separate state boards.

6. *Paramedical Groups and Medical Assistants*—Dr. Miller reported that MSMA is studying the possibility of proposing programs for training new types of medical assistants and will report developments to this liaison committee.

The subject of possible changes in the present Missouri Medical Practice Act was introduced. Dr. Miller stated that it was decided that this matter be placed on the agenda for the next joint meeting.

It was moved and seconded to approve Dr. Miller's report of the meeting with the Osteopathic Association and the Board of Healing Arts. The motion carried.

REPORT OF AMA DELEGATES

Dr. Gunn asked Dr. Neilson to give a report of the Delegates to the AMA. Dr. Neilson gave a run-down on the dates, times and places of the official meetings to be held during the AMA Annual Session in Chicago starting on June 21, 1970. He indicated that the Delegates' Handbooks would be mailed on May 25. Dr. Neilson stated that he had been assigned Chairman of Reference Committee "B," handling matters of legislation. He said that Dr. Washburn would be in charge of caucuses and will work with the delegates, alternates and officers to assure coverage of all reference committees. He stated that it is hoped that Dr. Benoit's name will be placed on the nominee list for the Council on Medical Service.

Dr. Neilson reported that Dr. Peterson would see that all Missouri resolutions not related to the Himler Report are supported in reference committees. He stated that Dr. Benoit will be in charge of Himler Report resolutions of which we have 14. All reference committees except Committee "B" will have a share of these Himler resolutions.

Alternate delegates were requested to be available to help the delegates and to assist in hosting the Headquarters Room.

It was moved, seconded and carried to accept the AMA Delegates' Report.

TELLER
Bill O'Malley

"He should do something about that cough."

REPORT ON ENVIRONMENTAL HEALTH

Dr. Neilson reported that the April Governor's Conference on Urban Affairs was a success with 550 persons in attendance. He stated that he had the honor of serving as cochairman of the Planning Committee and the privilege of giving an address at this three-day meeting. Dr. Neilson said that this meeting was so well received that it may become a yearly affair. He also reported that he had attended the AMA Environmental and Public Health Conference held in Washington, D. C. on May 3-5, which was attended by approximately 300 people from all over the country.

Dr. Neilson stated that the MSMA Woman's Auxiliary is seeking support for their 1970 state project of the education of children, PTA's, Women's Clubs, etc. on the subject of environmental pollution.

He reported that two subcommittees of the St. Louis-St. Louis County Medical Societies Committee on Environmental Health have been working on two important health problems. One committee, under Dr. Herbert Sweet, is studying the relationship between specific degrees of air pollution with specific pollutants with upper respiratory infection, asthma, cardiac reserve, etc. A second committee, under Dr. C. Howe Eller, St. Louis County Health Commissioner, has studied the problem of waste product disposal, especially as it relates to infection waste.

He stated that he hoped for Council support of these various environmental activities even though the Committee on Environmental Health has been absorbed by the Commission on Public Affairs and expressed the hope that the Chairman of the Commission will appoint an Ad Hoc Committee to permit the carrying out of the anticipated 1970 schedule of environmental projects.

It was moved and seconded that the report on Environmental Health be accepted. The motion carried.

REPORTS OF DISTRICT COUNCILORS

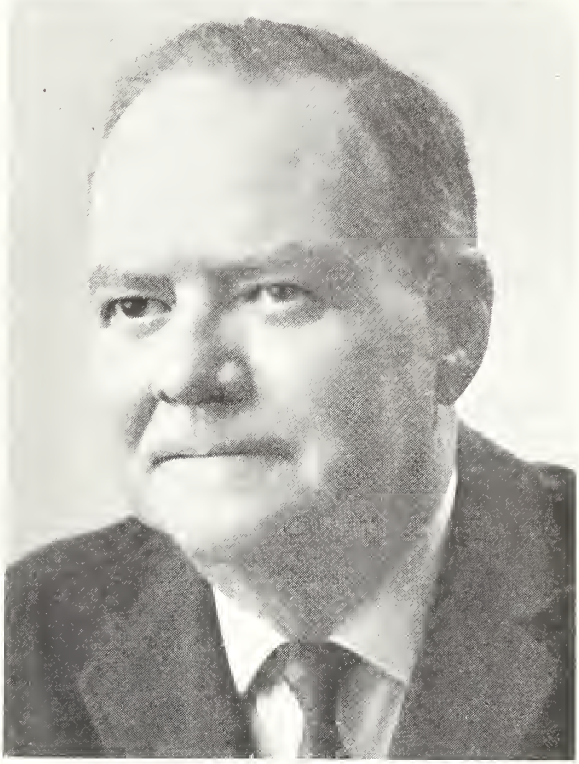
Dr. Martin, First District, reported that Buchanan County Medical Society held a joint meeting with the dentists which was well attended. He stated that he had attended a Northwest Missouri Medical Society meeting in Maryville which featured a scientific program sponsored by Merck & Company in the afternoon. Dr. E. Grey Dimond talked about the proposed new Medical School in Kansas City. He stated that his area was having problems with Missouri Comprehensive Health Planning and requested assistance from the MSMA staff.

Dr. Bach reported on the Second Councilor District meeting held at the Holiday Inn in Hannibal on March 10. Dr. Grey Dimond and Senator Richard Southern were the speakers at this well-attended meeting. He stated that the Hannibal area is in the process of organizing a measles immunization program and working to secure more physicians for the area. He stated that they have acquired the services of two new physicians and possibly a third.

Dr. Gunn, Third District, reported that the St. Louis Medical Society Council has gone on record favoring the updating of fee schedules by Medicare and Medicaid. He called attention to the Medical Society Athletic Injuries Conference for High School and College Coaches. He also stated that Telelecture programs have been arranged in the Medical Society Building in St. Louis. The Society also is working with Bi-State Regional Medi-

(Continued on page 618)

Thomas R. O'Brien Dies; Executive Secretary for 21 Years



Tom O'Brien

Thomas R. O'Brien, Executive Director of St. Louis Blue Shield and a former Executive Secretary of the Missouri State Medical Association for 21 years, died in his home in St. Louis on June 27, 1970 at the age of 62.

Mr. O'Brien served as Executive Secretary of the MSMA from 1944 to 1965. It was during this period (1945) that the Association sponsored the founding of the Missouri Medical Service (St. Louis Blue Shield). Under his leadership, the assets of Blue Shield grew from $5,000 to $12,400,000.

Mr. O'Brien's decision to leave the MSMA position in 1965 was made on doctor's orders. He had suffered a heart attack early in 1964 and a second attack in 1965. Although his activities were restricted, he continued as Executive Director of Blue Shield and has served as Executive Assistant for the MSMA since that date.

In submitting his resignation, "Tom" O'Brien told the Council, "For more than 20 years, the Missouri State Medical Association has been my life. I state this simply as a fact. The programs of the Association, the people of the Association, the problems of medicine in Missouri have filled my mind and have taken all the energy and effort of which I was capable. I leave your active service with a sense of fulfillment, not simply because of the work in which I have had a part, but also because of the rewarding personal attachments I have had with so many of you for so many years. I have loved my job."

Surviving are his wife, Orient; two sons, Thomas R., Jr. and Robert M.; a sister, Mrs. Edward Laskowitz; a brother, John D. O'Brien; and a grandchild.

A special tribute to Mr. O'Brien appears on page 614 of this issue of Missouri Medicine.

81.6% Pass First Exam in Family Practice Specialty

Results of the first certifying examination in the new medical specialty of family practice have been reported by Dr. John G. Walsh, Sacramento, Calif., president of the American Board of Family Practice.

Dr. Walsh said that 81.6% of the 2,078 physicians taking the two-day examination passed it successfully. The examination was offered in 36 centers throughout the country on February 28 and March 1, 1970.

According to Dr. Walsh, the most successful of the examinees were doctors who had been graduated within the last 20 years from either United States or Canadian medical schools. Among this group, he said, 95.5% passed.

Ninety-nine percent of all examinees were members of the American Academy of General Practice. The Academy was one of the two sponsoring organizations for the new American Board of Family Practice, the certifying agency, that was approved by the American Medical Association and the Advisory Board for Medical Specialties in February, 1969. The other sponsoring group was the Section on Family and General Practice of the AMA.

Information concerning the second examination in February, 1971 appears on page 608 of this Journal. Dr. Walsh noted that candidates who pass it will be included in the charter membership group of the Board of Family Practice. He added that material used in the first examination will not be reused in the second.

(Left to right) MSMA Secretary John I. Matthews and MSMA President Joseph L. Fisher are welcomed to the Fifth Councilor District Meeting in Jefferson City by MSMA Executive Secretary Raymond McIntyre and District Councilor Joseph C. Cope.

Mr. Bill Brennan of St. Louis Blue Shield and Dr. Cope contemplate the upcoming discussion of "third party medicine" prior to the program. Mr. Herbert Boerner of General American Life Insurance Co. *(second from left)* visits with Dr. Fisher.

Fifth District Doctors Meet in Capital City

A spirited discussion of "Third Party Medicine" occurred between physicians and representatives of the health insurance industry at the Fifth Councilor District Meeting at Ramada Inn in Jefferson City on June 4.

The meeting opened with a dinner at which Dr. Joseph C. Cope, Councilor for the Fifth District of the MSMA, presided. Dr. Joseph L. Fisher, President of the Association, was the guest speaker.

Dr. Fisher discussed problems now confronting organized medicine and emphasized the importance of all physicians in Missouri belonging to the MSMA. He said that "through membership, physicians can forcefully express their views and expect to be heard on the state and national level."

He cited the importance of AMPAC, MMPAC and the Key Man Program in relation to medical and public health care legislation and emphasized the impact each is now making on the national, state and local levels.

At the invitation of Dr. Cope, four insurance company representatives attended the dinner and meeting to make a formal presentation and answer questions from the physicians. They were Mr. Dale Boring of Mutual of Omaha; Mr. Herbert Boerner of General American Life Insurance Co.; and Mr. Bill Brennan and Mr. Ken Toprelzhofer of St. Louis Blue Shield. All participated in an in-depth discussion of third party medicine, utilization review and the handling of medical claims.

The question-and-answer period provided a unique opportunity for both the physicians and representatives to clarify points concerning numerous aspects of Medicare and Medicaid.

(Left to right) Mr. Ken Toprelzhofer, Mr. Dale Boring, Mr. Bill Brennan and Mr. Herbert Boerner representatives of the health insurance industry, await questions from physicians of the Fifth Councilor District.

MSMA physicians and their wives from Columbia, Boonville, Fulton, Versailles, Mexico and Jefferson City attended the Fifth Councilor District dinner and participated in the question-and-answer period.

Participants in the meeting were *(left to right)* Howard J. McAlhany, Councilor for the Eighth District and President, Greene County Medical Society; Mrs. William M. Walker, President, Woman's Auxiliary to the MSMA: Richard D. Wilbur, M.D., Assistant Executive Vice-President, AMA; and Joseph L. Fisher, M.D., President, MSMA.

Dr Joseph L. Fisher discussed the advantages of membership in the MSMA and reviewed numerous services provided by the State Association. He stressed the need for Missouri physicians to become actively interested in legislation and discussed recent changes in peer review which have been approved by the MSMA Council.

Dr. R. S. Wilbur Speaks to MSMA Eighth District

Dr. Richard S. Wilbur of the American Medical Association; Dr. Joseph L. Fisher, President of the Missouri State Medical Association; and Mrs. William M. Walker, President of the Woman's Auxiliary to the MSMA, were the guest speakers at the Eighth Councilor District Meeting held in Springfield on May 25.

Dr. Howard J. McAlhany, President of Greene County Medical Society and Councilor for the Eighth District, said that it was the first district meeting since 1957 and he is hopeful that it will become an annual affair.

The featured speaker, Dr. Richard S. Wilbur, Assistant Executive Vice-President of the AMA, presented some of the problems facing doctors today. He said that medicine is the second largest industry in the country and, consequently, "Everyone wants to get into the act." The government, hospitals, nursing homes and other paramedical institutions, as well as pharmaceutical companies, are ambitiously moving into the health care arena. In the final analysis, however, Dr. Wilbur believes the responsibility for the individual patient must and will remain in the hands of the physician.

Dr. Wilbur stated that the AMA is currently working on a noncancelable contract for malpractice insurance on a nationwide scale. In the audio-visual field, *patient* education films are soon to be used in waiting rooms. A film on the birth control pill is an example. It will be shown to patients before they see the doctor, and they may then ask questions during consultation. The date the patient sees the film will be recorded

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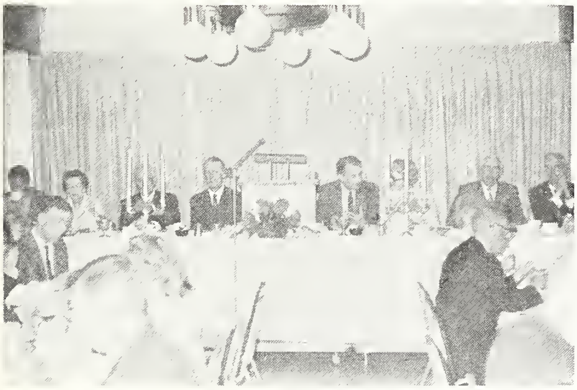
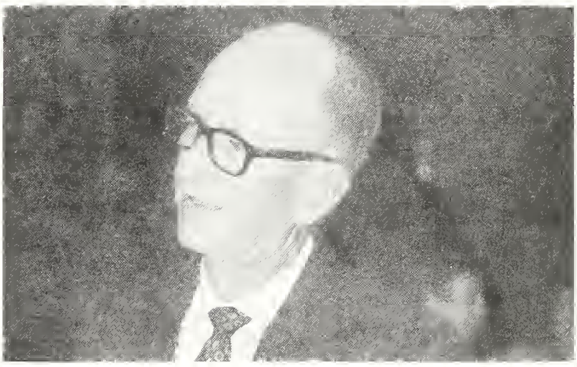


More than 150 physicians and their wives attended the Eighth Councilor District Meeting sponsored by the Greene County Medical Society in Springfield.



Dr. James T. Brown, Delegate to the MSMA from the Greene County Medical Society, asked Dr. Fisher a question regarding the status of peer review in Missouri.

Missouri's Senator Stuart Symington *(left)*, the featured speaker, talked about the quality of medical care being provided for Vietnam veterans. After the banquet, he answered questions posed by Dr. and Mrs. Gordon A. Nunnelly and Dr. Eugene T. Hansbrough, Councilor for the Tenth MSMA District.

Mr. James Baker, Vice-President of St. Louis Blue Cross *(left)*, and Mr. Proctor Carter, Director of the Missouri Department of Welfare, participated in a panel discussion during the Tenth Councilor District Meeting. Dr. Joseph L. Fisher, President of the MSMA, also appeared on the program.

Tenth District Features Senator Symington

More than 130 Southeast Missouri physicians, hospital administrators and their wives attended a Sunday meeting of the Tenth Councilor District of the MSMA at Ramada Inn in Cape Girardeau on June 7.

Hosted by the Cape Girardeau County Medical Society, the meeting featured an afternoon session in which members and representatives of various state welfare and insurance agencies discussed the delivery of medical care in Southeast Missouri.

Special guests at the meeting were Senator Stuart Symington of Missouri and Dr. Joseph L. Fisher, President of the Missouri State Medical Association. Dr. Eugene T. Hansbrough, Councilor for the Tenth District, also participated in the meeting.

Participants in the discussion included Mr. Kenneth D. Bopp, director of the State Comprehensive Health Planning Agency; Dr. Arthur E. Rikli, director for operations, Missouri Regional Medical Program; Mr. James Baker, vice-president of St. Louis Blue Cross; Mr. Proctor Carter, state welfare director; Dr. Raymond O. Muether, president of St. Louis Blue Shield; and the late Thomas R. O'Brien, who was executive director of St. Louis Blue Shield.

Dr. Gordon M. Nunnelly, President of the Cape Girardeau County Medical Society, described the meeting as a "diagnosis of medical ills" and said the meeting was devoted to communications and understanding between area physicians, hospital administrators and medical insurance agencies." He described the session as being "very successful."

(Continued on page 624)

(Left to right) Dr. Kirby L. Turner of Potosi, member of Mineral Area Medical Society, and Dr. T. Eugene Ruff of Poplar Bluff, member of Butler-Wayne-Ripley County Medical Society, attended the meeting in Cape Girardeau.

Dr. Gordon M. Nunnelly, President of Cape Girardeau County Medical Society, addressed the guests at the banquet. Physicians who attended the meeting received a white "straw" hat with red-white-blue band.

medical melange

Notes of interest from Here . . . . and There

Dr. Vernon E. Wilson, vice-president of academic affairs at the University of Missouri-Columbia, has been sworn in as administrator of the Departments of Health Services and Mental Health Administration for the U.S. Department of Health, Education and Welfare. According to **Elliot L. Richardson,** HEW Secretary, Dr. Wilson's job as administrator of one of the four major agencies of HEW will place him in a position to deal with the major health problems of the nation. Dr. Wilson joined the M.U. staff in 1959 as dean of the School of Medicine and director of the medical center. He became executive director for health affairs in 1967 and vice-president of academic affairs in 1968.

Dr. Richard A. Sutter, director of the Sutter Clinic in St. Louis, recently spoke on "Occupational Medicine in the 70's" at a postgraduate seminar sponsored by the Alumni Association of the Washington University School of Medicine. Dr. Sutter, a lecturer in industrial medicine and rehabilitation at Washington University, said that medical societies, industry, labor, the government and universities should strive to encourage greater research in occupational medicine in the 1970's.

Dr. Wilfred E. Wooldridge, Springfield, Clinical Professor of Medicine (Dermatology) at the University of Missouri School of Medicine, has been invited to appear on the guest lecture series of the New York University Skin and Cancer Unit in New York City. On Jan. 7, 1971, he will address the Dermatology and Oncology Sections on "Combined X-ray and Gamma-Radium Treatment for Skin and Lip Cancer."

Dr. Paul Miltenberger, Kennett, has been named recipient of the *Kennett Missouri Weekly* and *The Daily Dunklin Democrat* annual Citizen-of-the-Year award. He is the eleventh citizen to be cited for outstanding community and regional service by the newspapers. Dr. Miltenberger received the award for his contributions in the field of medicine.

A crowd estimated to equal the population of Jamesport (632) honored **Dr. F. B. Bailey** for his 38 years of service to that community recently at a basket dinner and program. Interested persons from Oklahoma, California, Kansas and Missouri attended the "Dr. Bailey Day" to express "the gratitude of the people of Jamesport and the area for having a doctor to serve them."

Dr. Otto H. Elser, ophthalmologist and a member of the medical staffs of Independence Sanitarium and Hospital and the Medical Center of Independence, served in a health ministry in the Republic of Haiti during the month of June. Dr. Elser worked in a specialized field of eye care in conjunction with the Albert Schweitzer Hospital in Deschappels, Haiti, which is the only hospital or medical facility in a district of Haiti which encompasses 80,000 people.

Mr. Gary L. Schnedler, Springfield, executive secretary of the Greene County Medical Society, presented a paper entitled, "The Greene County Medical Society's Approach to Health Care of the Poor," at a recent meeting of the American Medical Association Committee on Health Care of the Poor. Mr. Schnedler also serves as executive secretary of the Missouri Academy of General Practice.

Dr. Thomas S. Fleming, cardiologist at Woodland Hospital and Clinic in Moberly, retired on June 1 after 57 years in the active practice of medicine. He will continue to be associated with the hospital in the intensive care unit and interpretation of electrocardiograms. Dr. Fleming was honored by the Missouri Heart Association in 1957 for his outstanding contribution in the cardiac field.

Dr. Brent M. Parker, St. Louis, was elected president of the Missouri Heart Association at the organization's 21st Annual Meeting in Kansas City in June. Other newly-elected MHA officers include **Dr. Harry Stoeckle,** Columbia, vice-president; and **Mr. Chester G. Starr,** Columbia, treasurer.

Dr. Robert H. Fitzgerald, chief surgeon at Research Hospital, and **Dr. Douglas G. Kelling,** medical director of the GM Assembly Division, Division of General Motors, Kansas City, have been elected to six-year terms on the 36-member Board of Missouri Valley College in Marshall.—**Dr. Ben Koon,** Bolivar, was elected to the Board of Curators of Central Methodist College in Fayette in June.

Construction has begun on the first five buildings of a $5 million comprehensive medical and dental campus to be located in Cape Girardeau. The 20-acre development will be known as the "Cape Girardeau Doctors' Park." The master plan for the complex is unique to health service facilities in that it allows a physician or dentist to establish his own identifiable practice as a part of a much larger community intent on providing a total one-stop health service to the patient. The Cape Girardeau Doctors' Park Corporation is made up of 18 physicians and dentists. Dr. Charles F. Bahn is president.

WASHINGTON

Peer Review Proposed for Medicare, Medicaid

An American Medical Association proposal for peer review for the Medicare and Medicaid programs drew favorable reaction from members of the Senate Finance Committee.

Peer review was one part of a three-point program which Dr. Gerald D. Dorman, the outgoing president of the AMA, offered in testimony at a Senate Finance Committee hearing on Medicare and Medicaid.

Dr. Dorman and Dr. Julius W. Hill, president of the National Medical Association, testified together. They jointly urged, on behalf of their organizations, that Congress replace Medicaid with a national health insurance program subsidized by the federal government.

The AMA health insurance proposal, which initially was approved by the AMA House of Delegates in 1968, was similar to the plan President Nixon included recently in his proposed revised new national welfare program. He said he would send such legislation to Congress early next year.

Congress is not expected to take up proposals for national health insurance this year. Reaction to the peer review proposal, however, was highly encouraging and prospects for Congressional approval this year appeared good. Sen. Wallace F. Bennett (R., Utah), a finance committee member, directed the committee's staff to work with AMA staff representatives in drafting such legislation as an amendment to a bill revising Medicare and Medicaid.

The presidents of the AMA, with 223,000 members, and the predominantly Negro NMA gave assurances at the finance committee hearing of the medical profession's cooperation in in solving the nation's health care problems. It was the first time that spokesmen for the two leading medical associations had testified together before a Congressional committee.

Dr. Dorman said, "The medical profession hopes to see the nation pursue" the three-point program in efforts to provide quality health care for everyone as economically as possible.

Dr. Hill said that the insurance plan would work better than Medicaid in the ghettoes. He also defended physicians against accusations that they have been profiteering under Medicaid and Medicare.

The first two parts of the AMA program comprised the association's "Medicredit" health insurance plan. The third, peer review, "is a way to assure both scientific quality and economic reasonableness in the medical and health care people get," Dr. Dorman said.

"Our first program would meet the problems of the Title XIX Medicaid program," Dr. Dorman said. "Under our plan, each low-income person or family would receive a certificate for the purchase of a qualified and comprehensive health insurance plan. The protection would be theirs without expense or contribution since the cost of the program would be borne entirely by the federal government.

"The second offers tax credits, on a sliding scale based on the tax liability of a family, for the purchase of qualified health benefits coverage. For those with moderate or higher levels of income, the program would provide cash incentives, through income tax credits, to encourage them to protect themselves against major health care costs.

"The third part of our program calls for a structured peer review mechanism to insure high quality of care and to prevent abuses of the Medicare and Medicaid programs."

Dr. Dorman noted that the committee's staff, in a report on Medicare-Medicaid last February, suggested that organized medicine regulate itself.

"We agree, and propose a program providing for professional review of matters bearing on reasonableness of charges for, need for, and the quality of services rendered by, the provider of medical or other health services," he said.

In a speech on the Senate floor, Bennett said there is deep concern over the high costs of Medicare and Medicaid. He complimented the AMA on advancing peer review as a means of curbing these costs. He said:

"I believe the American people are justifiably concerned over the tremendous costs of health care. Much of that concern, it seems to me, is a product of a very real feeling that we are not getting what we are paying for. I be-

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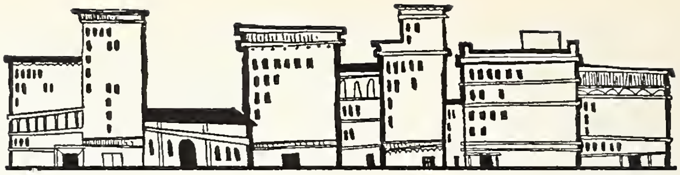
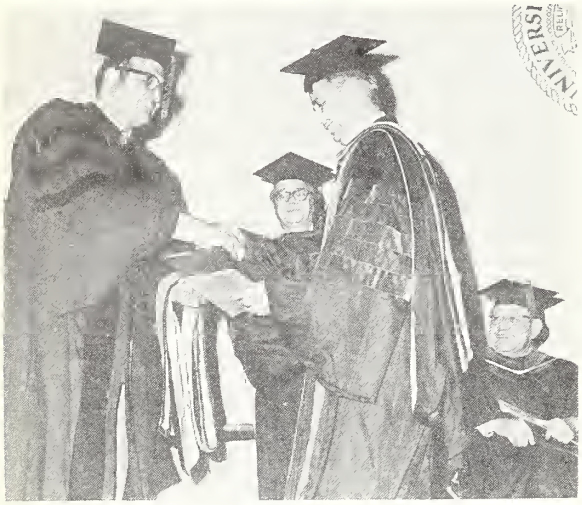
From the Medical Schools



ST. LOUIS UNIVERSITY



Dr. V. L. Willman, professor and chairman, department of surgery, St. Louis University School of Medicine (third from left), received the Golden Apple Award as an outstanding teacher in clinical studies from Dr. Rocco Fiordelisi, president, senior class (left). Standing in the background is Dr. Donald W. Bussmann, assistant dean, and seated at right is Dr. Robert H. Felix, dean, School of Medicine.

The Hippocratic Oath was recited by 101 graduates of the St. Louis University School of Medicine at a Senior Class Day Ceremony held at the St. Louis Medical Society Auditorium June 5. Dean Robert H. Felix led in the recitation of the oath and presented hoods to the graduates.

Keynote speaker was Boisfeullet Jones, LL.B., president of the Emil and Ernest Woodruff Foundation, and former Assistant Secretary for Health and Scientific Affairs, Department of Health, Education and Welfare, who spoke on "Medical Care in the Years Ahead."

Thomas F. Barrett, Youngstown, Ohio, who graduated summa cum laude, was the recipient of three awards, the Missouri State Medical Association Award for academic excellence, the Eli Nadel award for excellence in the study of pathology and the department of physiology award for excellence in the study of physiology.

Many other students were recipients of awards including Dr. Philip M. Farrell of St. Louis, who won the $500 Borden Award in the 1970 Beaumont competition for excellence in student research. He was co-winner of the 1970 Alpha Omega Alpha award for research excellence. Dr. Farrell, who received the M.D. degree June 6, is a candidate for a Ph.D. degree, to be conferred in January.

Dr. Rocco Fiordelisi, Rockford, Ill., who served as class president during his freshman, sophomore, junior and senior years, made several surprise presentations to the medical faculty. Dr. V. L. Willman, professor and chairman, department of surgery, and Dr. Branislav Vidic, associate professor of anatomy at the School of Medicine, were named winners of the annual Apple Award for excellence in teaching. Their names will be inscribed on a plaque to remain at the School of Medicine. Dr. Donald W. Bussmann, assistant dean, was the recipient of a plaque of appreciation from the student body.

Presentation of commissions to graduates was by Rear Admiral John W. Albrittain, M.D., U.S.N., deputy surgeon general, U. S. Navy.

St. Louis University School of Medicine and Bethesda General Hospital have announced the establishment of a teaching affiliation in surgery and medicine, the first phase of a projected program of increased cooperation between the two institutions.

Rev. Edward J. Drummond, S.J., vice president, St. Louis University Medical Center and John M. Wolff, president, Bethesda General Hospital, and a member of the Board of Trustees of St. Louis University, signed an agreement that will establish the association beginning July 1. The signing took place in the office of Mr. John F. Norwood, administrator, Bethesda General Hospital on June 29.

Also present for the ceremony were Drs. George E. Thoma, assistant vice president, St. Louis University Medical Center; Robert H. Felix, dean, St. Louis University School of Medicine; Eli Nadel, associate dean, St. Louis University School of Medicine; and Robert C. Drews, president, medical staff, Bethesda General Hospital.

Dean Felix said that this represented a step forward in health care for the community. Additional affiliations with other departments, he said, may be developed in later stages.

Four new appointments have been announced in the department of internal medicine headed by Dr. Thomas F. Frawley. Named associate professor was Dr. Robert V. Farese, formerly internist and endocrinologist at Good Samaritan Hospital and St. Mary's Hospital, West Palm Beach, Fla. Named assistant professor was Dr. William M. Fogarty, Jr., formerly senior surgeon at the U. S. Public Health Service and staff associate at the National Institute of Health, Laboratory of Molecular Biology. Also named assistant professor was Dr. Helmuth Haibach, a staff physician at Veterans Administration Hospital, Jefferson Barracks. Appointed instructor was Dr. Benito I. Veluz, who is associated with the Pulmonary Disease Laboratory at City Hospital.

Dr. Louis S. D'Agrosa, assistant professor of physiology, St. Louis University School of Medicine, has been elected president of the St. Louis University Chapter of the Society of the Sigma Xi, scientific honor society. His term of office is for one year. Dr. Edward A. Doisy, Jr., professor of biochemistry, was elected vice-president.

MISSOURI UNIVERSITY

A grant of $143,000 to develop new methods in medical education has been awarded to the School of Medicine at the University of Missouri-Columbia by the John and Mary Markle Foundation of New York City.

Dean William D. Mayer, in making the announcement, said: "First, it will allow us to develop more self-instructional materials for medical students and allied health programs and, secondly, it will provide support for our research in medical education: methodology, design and evaluation."

The funds will be distributed over a three-year period for development of programs designed by the Educational Resources Group headed by Donald A. Senhauser, M.D., professor of pathology and chairman of the education committee of the School of Medicine. The group is comprised of physicians, experienced educational programmers, specialized personnel in a research and development laboratory and others involved with medical education services (photography, television, medical illustration and motion pictures). They have produced, or have in production now, about 45 self-instructional programs.

Among the major problems facing medical education today, according to Dr. Senhauser, are the following:

(1) How to meet the demand for training and educating increasing numbers of medical and paramedical students with a limited number of faculty. (In terms of faculty-student ratios, faculty is decreasing.)

(2) How to present in a meaningful, individualized way the ever increasing amount of medical information, which has a rapid turnover as to relevance and obsolescence.

(3) How to meet the need for individualized instruction which is now widely recognized and accepted by educators, and in demand by students. (Students have varying rates of learning in many areas of studies.)

The School of Medicine in Columbia is meeting the challenge through new multidisciplinary laboratories for first- and second-year students in the preclinical years. Organized around a learning-center concept, this educational plan uses a number of self-instructional techniques, including audio-visuals, closed circuit television and computer-assisted programs.

The self-instructional materials are produced by the programmers of the Educational Resources Group, under the direction of Merlyn C. Herrick, Ed.D., working with regular faculty members of the various departments in the Medical School. This supplemental program allows individual students to study at a time convenient to them and also serves as a vehicle for remedial instruction for the slow learner. He can play a "tape-slide show" as many times as he wishes, rather than listen to a "live" lecturer once.

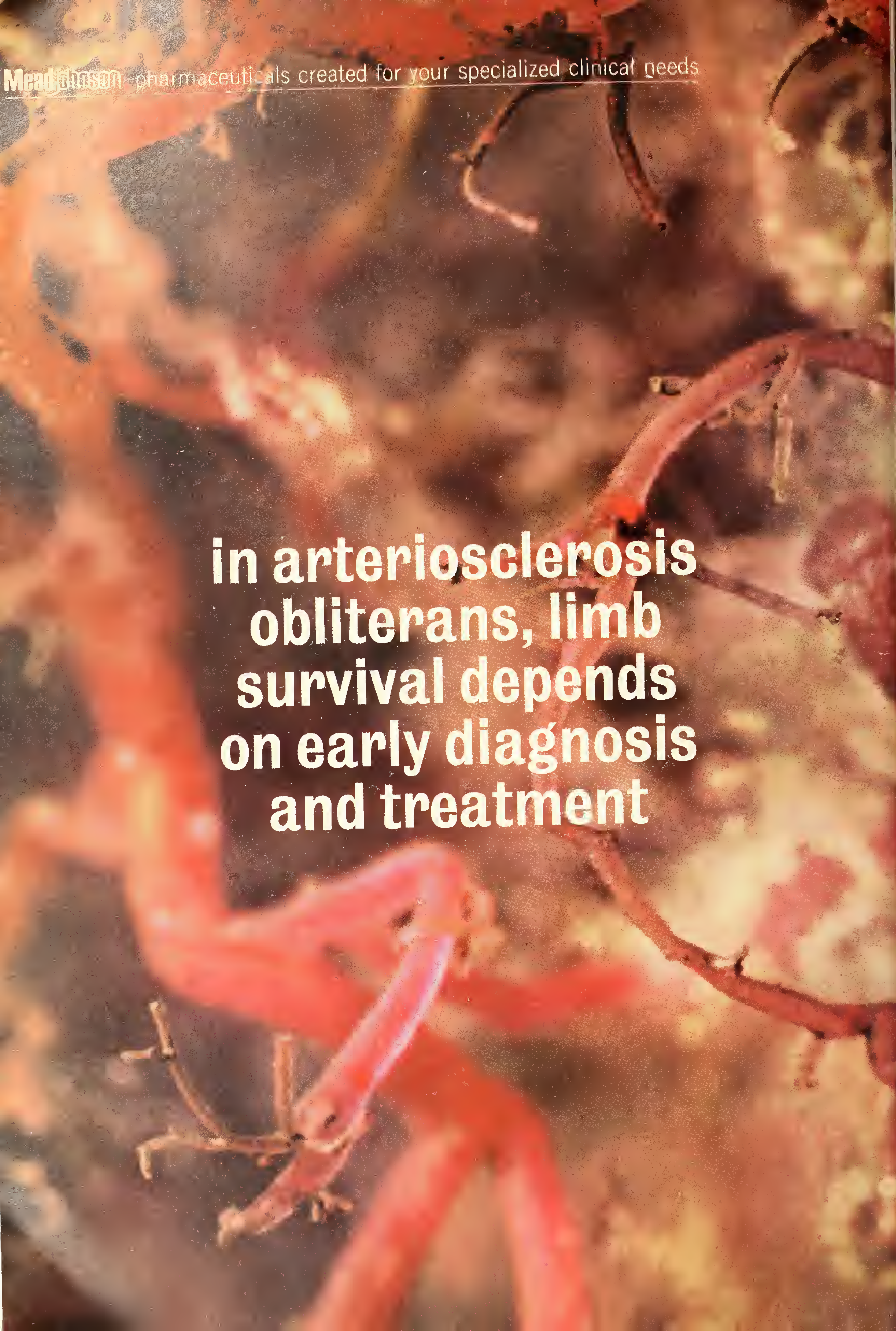
WASHINGTON UNIVERSITY

At its 109th commencement on June 1, 1970, Washington University presented the Doctor of Medicine degree to 88 candidates. Chancellor Thomas H. Eliot also conferred honorary Doctor of Science degrees on three alumni of the School of Medicine:

—James Barrett Brown, M.D., Class of 1923, emeritus professor of clinical plastic and reconstructive surgery, Washington University School of Medicine, described by the Chancellor as "one of the greatest, if not the greatest plastic surgeon of his time."

—John H. Knowles, M.D., Class of 1951, general director, Massachusetts General Hospital, "a vocal advocate of health care improvement and medical involvement."

—Earl W. Sutherland, Jr., M.D., Class of 1942, professor of physiology, Vanderbilt Univer-



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Microphoto of small artery occlusions in a toe amputated because of severe arteriosclerosis obliterans. Cast was made by injecting acrylic plastic into the vessels. The occluded vessels measure about 30 to 50 microns in diameter. *Used with permission. Courtesy of Margaret C. Conrad, Ph.D., Department of Physiology, Bowman-Gray School of Medicine, Wake Forest College, Winston-Salem, N. C.*

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- **may be used safely in patients with peptic ulcer, diabetes or chronic coronary artery disease[3,6,7]**

New 20 mg. strength now available: Vasodilan 20 mg. tablets for greater dosage simplicity and convenience. Recommended *initial* dose: one 20 mg. tablet q.i.d.

Although not all clinicians agree on the value of peripheral vasodilators,[8-10] several investigators[3,6] have reported favorably on the effects of isoxsuprine on peripheral blood flow in skeletal muscle vessels. Effects have been demonstrated both by objective measurement[1,6,11] and observation of clinical improvement.[3-5,12]

Indications: Arteriosclerosis obliterans, diabetic vascular diseases, thromboangiitis obliterans (Buerger's disease), Raynaud's disease, postphlebitic conditions, acroparesthesia, frostbite syndrome and ulcers of the extremities (arteriosclerotic, diabetic, thrombotic). **Composition:** VASODILAN tablets, isoxsuprine hydrochloride 10 mg. and 20 mg. **Dosage:** Oral—10 to 20 mg. t.i.d. or q.i.d. **Contraindications and Cautions:** There are no known contraindications to recommended oral dosage. Do not give immediately postpartum or in the presence of arterial bleeding. **Side Effects:** Occasional palpitation and dizziness can usually be controlled by dosage reduction. As intramuscular administration of 10 mg. or more may cause brief hypotension and tachycardia, single intramuscular doses exceeding this amount are not recommended. Complete details available in product brochure from Mead Johnson Laboratories. **References:** (1) Stein, I. D.: Angiology *15*:1 (April) 1964. (2) New Drugs— Evaluated by the A.M.A. Council on Drugs, Chicago, American Medical Association, 1967, pp. 295-297. (3) Kaindl, F.; Pärtan, J., and Polsterer, P.: Wien. klin. Wchnschr. *68*:186-191 (March 16) 1956. (4) Frieh, Ch., and Olivier, L.: Lyon Méd. *91*:891-896 (May 24) 1959. (5) Weghaupt, Von K.: Wien. klin. Wchnschr. *69*:31-32 (Jan. 11) 1957. (6) Kaindl, F.; Samuels, S. S.; Selman, D., and Shaftel, H.: Angiology *10*:185-192 (Aug.) 1959. (7) Samuels, S. S., and Shaftel, H. E.: J. Indiana M. A. *54*:1021-1023 (July) 1961. (8) Myers, K. A.: Mod. Treat. *4*:370-383 (March) 1967. (9) Gillespie, J. A.: Angiology *17*:280-288 (May) 1966. (10) Smit, Arne, F., *et al.*: Nord. med. *20*:1260, 1959. (11) Samuels, S. S., and Shaftel, H. E.: J.A.M.A. *171*:142-145 (Sept. 12) 1959. (12) Clarkson, I. S., and LePere, D. M.: Angiology *11*:190-192 (June) 1960.

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sity, "one of the nation's great biological scientists."

The School of Medicine has announced that Saul Boyarsky, M.D., will succeed Justin J. Cordonnier, M.D., as professor and director of the division of genitourinary surgery. Dr. Boyarsky is currently professor of urology at Duke University School of Medicine in Durham, N. C.

Dr. Cordonnier, who will continue the practice of medicine after relinquishing his administrative duties, was named professor of urology in 1953. Before this appointment, he had served as a member of the clinical faculty since 1938.

Marshall B. Conrad, M.D., has joined the full time School of Medicine faculty as assistant professor of orthopedic surgery. A 1945 graduate of the School of Medicine, Dr. Conrad has been a member of the part time faculty since 1954. Because of his outstanding teaching and practice, he was promoted to assistant professor of clinical orthopedic surgery in 1966. He served as president of the Washington University School of Medicine Alumni Association for the year 1969-1970.

Stanford Wessler, M.D., John E. and Adaline Simon Professor of Medicine and physician-in-chief at Jewish Hospital of St. Louis, has been elected chairman-elect of the Washington University School of Medicine Faculty Council.

Mark A. Stewart, M.D., associate professor of psychiatry and of pediatrics, is chairman of the organization. He succeeds John D. Vavra, M.D., associate professor of medicine.

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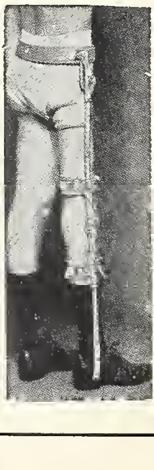

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New Members

Saul Boyarsky, M.D., 4960 Audubon Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Boyarsky is a native of Burlington, Vt., received his preliminary education at the University of Vermont and his M.D. degree at the University of Vermont in 1946. He specializes in urology.

William E. Busby, M.D., 113 W. Broadway, Columbia, has become a member of Boone County Medical Society. Dr. Busby is a native of Independence, received his preliminary education at Central Missouri State College and his M.D. degree at the University of Missouri in 1968. He specializes in pediatrics.

John A. Byer, M.D., 201 W. Broadway, Columbia, has become a member of Boone County Medical Society. Dr. Byer is a native of Los Angeles, Calif., received his preliminary education at Arizona State College and his M.D. degree at Baylor University in 1966. He specializes in neurology.

Henry Casson, M.D., Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Casson is a native of Liverpool, England, received his preliminary education at Liverpool University and his M.D. degree at Liverpool University in 1959. He specializes in anesthesiology.

Horacio T. Crespo, M.D., 370 Raymond Dr., Florissant, has become a member of St. Louis County Medical Society. Dr. Crespo is a native of the Philippines, received his preliminary education at the University of St. Thomas and his M.D. degree at the University of St. Thomas in 1954. He is in general practice.

Remedios R. Crespo, M.D., 370 Raymond Dr., Florissant, has become a member of St. Louis County Medical Society. Dr. Crespo is a native of the Philippines, received his preliminary education at the University of St. Thomas and his M.D. degree at the University of St. Thomas in 1954. He is in general practice.

Robert S. Gardner, M.D., Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Gardner is a native of Saratoga Springs, N. Y., received his preliminary education at Princeton University and his M.D. degree at New York University in 1964. He specializes in internal medicine (endocrinology).

Lewis J. Garrotto, M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Garrotto is a native of Hamburg, Iowa, received his preliminary education at Washington University and his M.D. degree at University of Iowa in 1962. He specializes in radiology.

Donald R. Germann, M.D., Wornall Rd. at 44th St., Kansas City, has become a member of Jackson County Medical Society. Dr. Germann is a native of Alta Vista, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1944. He specializes in radiology.

Harvey T. Huddleston, M.D., Smithville Clinic, Smithville, has become a member of Clay County Medical Society. Dr. Huddleston is a native of Forester, Ark., received his preliminary education at Mississippi College and his M.D. degree at the University of Mississippi in 1962. He specializes in obstetrics and gynecology.

Ione Huntington, M.D., Missouri State Sanatorium, Mt. Vernon, has become a member of Ozarks Medical Society. Dr. Huntington is a native of Ithaca, N. Y., received his preliminary education at Cornell University and his M.D. degree at the University of Southern California in 1950. He specializes in internal medicine.

Christopher Jung, M.D., 4949 Rockhill Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Jung is a native of Glen Ridge, N. J., received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1969. He is a resident at Menorah Medical Center.

Burnell Landers, M.D., 6400 Prospect, Kansas City, has become a member of Jackson County Medical Society. Dr. Landers is a native of Dexter, received his preliminary education at William Jewell College and his M.D. degree at the University of Missouri in 1964. He specializes in internal medicine.

David L. Mainz, M.D., 703 W. Main, Fredericktown, has become a member of Mineral Area County Medical Society. Dr. Mainz is a native of San Antonio, Tex., received his preliminary education at St. Mary's College and his

M.D. degree at St. Louis University in 1965. He is in general practice.

Lana Minnigerode, M.D., 11 S. William, Columbia, has became a member of Boone County Medical Society. Dr. Minnigerode is a native of Brookfield, received her preliminary education at the University of Missouri and her M.D. degree at the University of Missouri in 1966. She specializes in physical medicine and rehabilitation.

Vaughn C. Payne, M.D., 1423 N. Grand, St. Louis, has become a member of St. Louis Medical Society. Dr. Payne is a native of Calhoun, Ala., received his preliminary education at the B. S. Morehouse College and his M.D. degree at Howard Medical College in 1930. He specializes in radiology.

Carlos Alberto Perez, M.D., 510 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Perez is a native of Pereira, Colombia, received his preliminary education at Liceo Universidad de Antioquia and his M.D. degree at Universidad de Antioquia, Colombia in 1960. He specializes in radiology.

Luis Schwarz, M.D., 8145 University Dr., Clayton, has become a member of St. Louis County Medical Society. Dr. Schwarz is a native of Lima, Peru, received his preliminary education at Universidad Nacional Myor De San Marcos and his M.D. degree at Universidad Autonoma of Mexico in 1955. He specializes in psychiatry.

David L. Speer, M.D., 1043 Port Diane, Creve Coeur, has become a member of St. Louis County Medical Society. Dr. Speer is a native of Evansville, Ind., received his preliminary education at Memorial J.S., Evansville and St. Louis University and his M.D. degree at St. Louis University in 1957. He specializes in anesthesiology.

Allen F. Tess, M.D., 1225 Graham Rd., Florissant, has become a member of St. Louis Medical Society. Dr. Tess is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at St. Louis University in 1964. He specializes in ophthalmology.

George C. Wee, M.D., 27-B E. Circle Dr., St. Louis, has become a member of St. Louis County Medical Society. Dr. Wee is a native of Kulangsoo, China, received his preliminary education at the University of Philippines and his M.D. degree at the University of Louisville in 1930. He specializes in general surgery.

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ALEXANDER C. SONNENWIRTH, Ph.D., *St. Louis*

A Fatal Case of Group C Streptococcal Endocarditis

Case Report

LANCEFIELD'S WORK[1] on the serological differentiation of hemolytic streptococci appeared in 1933. Since then, organisms of Group C rarely have been reported as a cause of human infection. However, the beta hemolytic Group C streptococcus may cause serious and even fatal infection in man as exemplified by the following case report of bacterial endocarditis.

CASE REPORT

Clinical Findings

A 64-year-old white woman was well until six weeks before admission when she exhibited somnolence, difficulty in walking, decreased mental acuity and social withdrawal. Four weeks before admission, her physician noted "anemia" and prescribed iron and vitamin therapy. One week prior to hospitalization, the patient became febrile with temperature elevations to 102 F and was treated with 10 grains of aspirin. She became afebrile over the next 24 hours. The patient was up and about, conversing and feeding herself until the day of entry, at which time she abruptly became obtunded. Her physician made the diagnosis of a cerebrovascular accident and she was referred to the Jewish Hospital of St. Louis.

There was no history of pharyngitis, skin infection, recent dental manipulation or previous heart disease.

Physical examination revealed a pale, thin woman responding only to moderate pain or occasional shouted commands. Her blood pressure was 128/82 mm Hg, pulse rate was 98 beats per minute and regular, rectal temperature was 100.4 F and respirations were 30 per minute and regular. The skin and mucous membranes were dehydrated. There were bilateral palpebral conjunctival hemorrhages, and several Roth spots were seen in each fundus. Auscultation revealed decreased breath sounds in the right lower posterior chest. A soft grade III/VI pansystolic murmur, heard loudest at the apex, radiated into the axilla. There was no splenomegaly. Neurological examination revealed a left hemiparesis and bilateral ankle clonus, Hoffman and Babinski responses. The Kernig and Brudzinski signs were equivocal.

Laboratory data on admission included a hemoglobin level of 9.0 gm/100 ml, a hematocrit reading of 26% and a white blood cell count of 28,200/mm^3. The differential white blood count on the following day showed 74% polymorphonuclear leukocytes with 14% band forms; juveniles, 2%; lymphocytes, 9%; and monocytes, 1%. The platelet count was 40,500/mm^3, and the corrected sedimentation rate was 9 mm/hr. The blood urea nitrogen was 174 mg/100 ml; creatinine, 5.2 mg/100 ml; sugar, 145 mg/100 ml; sodium, 126 mEq/L; potassium, 5.7 mEq/L; chloride, 95 mEq/L; carbon dioxide, 15.8 mEq/L. The blood pH was 7.58 with a P_{CO_2} of 23.2 mm Hg and a P_{O_2} of 37.6 mm Hg (72%

saturated). An electrocardiogram showed sinus tachycardia with frequent atrial premature contractions. A portable chest roentgenogram revealed a diffuse infiltrate of the right lung; skull x-rays showed an intact cranial vault and a midline pineal gland. A catheterized urine specimen had a specific gravity of 1.019, a pH of 5.0 and a trace of albumin, but no sugar or acetone. The urinary sediment contained numerous red blood cells per high power field. A urine culture grew less than 100 colonies of *E. coli* per ml. An atraumatic lumbar puncture revealed opening and closing pressures of 230 mm and 100 mm of water, respectively; 15,000 cells/mm^3 (most of which were crenated red cells); and xanthochromia. The supernatant spinal fluid protein was 195 mg/100 ml, and the sugar was 56 mg/100 ml, which was only 39% of the simultaneous blood sugar. Chains of Gram positive cocci were seen on direct smear of the spinal fluid, which, in addition to two blood cultures, grew a beta hemolytic streptococcus.

Sixteen hours after admission the patient's temperature was 102.2 F; urine output had been only 6 ml/hr, and the urine was grossly bloody. The patient received a single 1 gm dose of streptomycin intramuscularly and the dosage of ampicillin, administered intravenously, was increased from 2 gm to 12gm/24 hr.

Over the next 40 hours, the patient was maintained on nasal oxygen and fluids administered intravenously. Her temperature decreased to normal, but she remained stuporous. Her blood pressure began to fall, and she died 56 hours after admission.

Pathological Findings

The major pathologic findings involved the heart, brain, kidneys and spleen.

The heart weighed only 270 gm. The mitral valve revealed a large yellowish-brown fungating and filiform vegetation (Fig. 1). The anterior cusp was partially destroyed and replaced by the vegetation. No definite evidence of previous valvular disease was seen. The myocardium showed focal healed and recent infarcts. Histologically, within a recent myocardial infarct, a thrombus was seen in a small blood vessel. There was no gross evidence of occlusive coronary disease. Microscopic examination of the vegetation showed a mass of fibrin surrounded by moderate numbers of mononuclear cells. Short chains of Gram positive coccal-shaped organisms were demonstrated by the MacCallum-Goodpasture stain (Fig. 2).

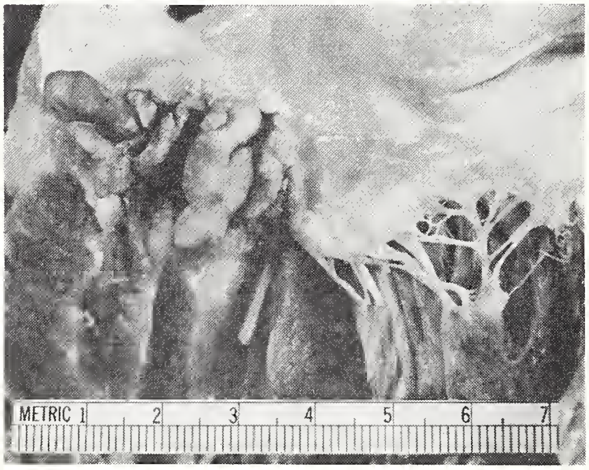

Fig. 1 Destructive vegetation of anterior cusp of mitral valve.

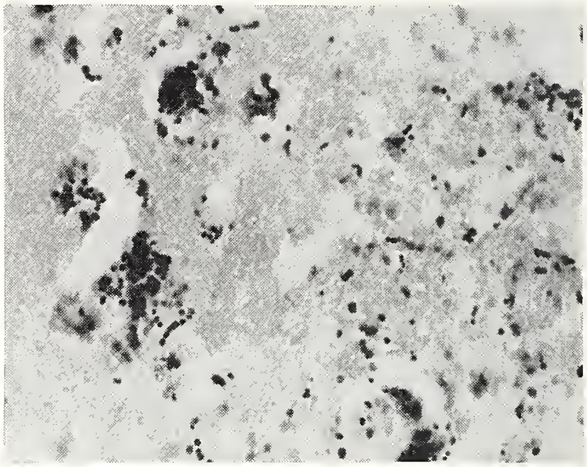

Fig. 2 Coccal-shaped groups of bacteria in the mitral valve vegetation. Note short chain formation (MacCallum-Goodpasture Stain—780 X).

In the brain, a moderate amount of subarachnoid hemorrhage was seen in both parietal regions and in the tonsillar area. Neither a fibrinous exudate nor suppuration was found in the leptomeninges. Microscopic examination showed red blood cells in the subarachnoid space. In other areas, small numbers of polymorphonuclear cells and fibrin were seen. In the superficial cortical region, small areas of necrosis and a necrotic small blood vessel were observed.

Gross and microscopic infarcts were seen in the heart, kidneys, spleen and brain. Most of these infarcts were considered to be the result of embolization from the bacterial vegetation on the mitral valve. Some infarcts appeared septic. Infarcts also were noted in the lungs which showed extensive bronchopneumonia. Despite a sterile postmortem blood culture, Group C streptococci were grown from both a leptomeningeal swab and the mitral valve vegetation.

Bacteriological Findings

The same organism was grown from the blood, cerebrospinal fluid, leptomeninges and mitral valve vegetation. These isolates were identified as streptococci of Lancefield Group C; grouping was performed by the acid extraction method using Burroughs Wellcome and Co. antisera. In addition to the Lancefield serological grouping, certain biochemical and physiological tests were performed to delineate further the characteristics of the organism. The bacteria behaved unequivocally like beta hemolytic streptococci on 5% sheep blood agar; the organism was insensitive to bacitracin (0.04 unit/disc), was catalase negative, did not grow on Endo agar, but did produce moderately short chains in heart infusion broth. The organisms grew on 10% bile blood agar plates, but not on that containing 40% bile, hydrolyzed arginine, gave an alkaline reaction in litmus milk and produced acid from maltose, trehalose, salicin and glycerol, but not from arabinose, raffinose, mannitol, sorbitol or lactose. It did not survive at 60 C, nor did it grow at 45 C, in 6.5% NaCl or pH 9.6 broth; 0.1% methylene blue milk was not reduced. These findings allow the designation of the isolates as *Streptococcus equisimilis*, as described by Cowan and Steel.[2]

Using the single disc sensitivity method of Petersdorf and Sherris,[3] the organism was sensitive to ampicillin, chloramphenicol, cephalothin, penicillin, methicillin, linomycin and erythromycin, but it was resistant to tetracycline, streptomycin and kanamycin. Tube dilution sensitivity tests were performed using penicillin and ampicillin. The minimum inhibitory concentrations (MIC) and minimum bactericidal concentrations (MBC) were 0.097 μgm/ml for both antibiotics.

A report of a fatal case of acute bacterial endocarditis caused by a Group C streptococcus, which is rarely associated with human infection. This case demonstrated many of the usual features of bacterial endocarditis. An interesting aspect was the involvement of the central nervous system to which presenting symptomatology was related. This is the second documented death attributed to this organism. Dr. Bullock was Assistant in Medicine, Washington University School of Medicine and Intern at The Jewish Hospital of St. Louis, and Dr. Cruz was Assistant in Pathology at the School of Medicine and Resident at the Hospital at the time this paper was written. Dr. Rabin is Associate Professor, Department of Pathology at the School of Medicine and Associate Pathologist at the Hospital. Dr. Sonnenwirth is Assistant Professor, Department of Microbiology and Pathology at the School of Medicine and Director, Division of Microbiology, Department of Pathology at the Hospital.

DISCUSSION

Group C streptococci have been encountered infrequently in human disease. In Rantz and Keefer's study[4] of 1,159 strains of beta hemolytic streptococci isolated at the Boston City Hospital from September, 1938 until June, 1939, only 1.2% (14 strains) were Group C. They stated: "In no instance was it possible to prove the etiological association of these organisms with disease in man." Bliss and associates[5] shared a similar view of the nonpathogenicity of the Group C streptococcus in man. In 1942 and 1943, two clinical series were reported concerning infections caused by non-Group A beta hemolytic streptococci, but no Group C organisms were implicated.[6, 7] A later series appeared in 1965 citing 19 cases of non-Group A or D streptococcal infections and in none was a Group C positively identified.[8]

Other series, however, have shown that occasional Group C streptococci have been cultured from various infections.[9–12] The presence of Group C organisms in abscesses,[10–12] pneumonia,[11, 12] scarlet fever,[11, 12] puerperal infection or septic abortion,[11–19] tonsillitis,[13, 19] cellulitis,[19] osteomyelitis,[19] empyema,[11, 12, 21] wound infections,[19–21] septicemia,[11, 12, 19, 21, 22] rheumatic fever,[23] and erysipelas,[11-13, 24] have all been noted. In 1944, Portnoy and Reitler[25] reported an epidemic of Group C cellulitis in which four deaths occurred. Documentation that the deaths were caused by the Group C organism, however, was scant because neither autopsies nor cultures were obtained.

Group C streptococcal endocarditis is rare. Porterfield[26] classified the isolates from 29 cases of streptococcal endocarditis, but there was no mention of a Group C organism. To date, only three previous cases of Group C endocarditis have been reported.[27–29] In 1940, a 28-year-old Italian housewife developed endocarditis which was thought to be secondary to puerperal infection. A sulfanilamide resistant Group C organism was recovered from four blood cultures. At autopsy, vegetative endocarditis involving the mitral valve was noted, but valvular cultures were not mentioned. This was the first report[27] of a death from the C organism. (Ramsey and Gillespie[16] incorrectly referred to an earlier "fatal" case in a 1940 article by Hill and Butler.[17]) More recently, a second patient with Group C endocarditis presented with arthralgias, but later developed a new murmur and splenomegaly. She improved after a six-week course of penicillin.[28] The third case concerned a patient who developed meningitis, panophthalmitis and endocarditis.[29] Group C organisms were grown from the blood, but no mention was made of spinal fluid cultures. The patient survived, but she was blind. Analysis of these three cases and the present fourth case show that all those affected have been women, with no apparent previous heart disease.

In our patient, the presenting symptomatology was related mainly to the central nervous system. This most likely was a result of meningeal irritation from hemorrhage or incipient meningitis and focal cerebral micro-infarcts. Neurological symptoms are not an infrequent presentation of bacterial endocarditis; however, when a patient has a cerebrovascular accident, it is rarely appreciated that this could be caused by septic emboli. Lerner and Weinstein,[30] in a recent article on infective endocarditis, stated: "Twenty percent of our patients with endocarditis had neurologic manifestations." These can be caused by emboli, thrombi, acute purulent meningitis, multiple brain abscesses or rupture of a mycotic or congenital aneurysm.[30] Roach and Drake[31] found five out of 191 cases (2.6%) of ruptured cerebral aneurysms to be caused by bacterial endocarditis. McDonald and Korb[23] found that out of 1,125 cerebral aneurysms reported in the literature prior to 1938, 70 (6.2%) were thought definitely to be of mycotic origin.

SUMMARY

A fatal case of acute bacterial endocarditis caused by a Group C streptococcus, an organism rarely associated with human infection, is reported. A review of the English literature on Group C streptococcal disease revealed only three previous cases of endocarditis. The present case is the second documented death attributed to this organism and is the first instance in which a Group C streptococcus has been recovered from a heart valve. This case demonstrates many of the usual features of bacterial endocarditis; an interesting aspect was the involvement of the central nervous system, with presenting symptomatology related to it.

Acknowledgment: The authors express appreciation to Dr. J. Russell Little; Miss Lois Burgard, B.S., M.T. (A.S.C.P.); Dr. Robert Zappia; and Mr. Kenneth Moore for their assistance in the preparation of this paper.

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JERRY BAMSHAD, M.D., ***Columbia***

Xerosis (Asteotosis)

The author points out that patients with this common skin disorder need only a simple treatment to be freed of skin lesion and to prevent widespread dermatitis and other possible complications. Dr. Bamshad is Assistant Professor of Dermatology in the Department of Medicine at the University of Missouri Medical Center.

Xerosis is a common skin disorder which is seen mostly in elderly people, especially in the winter time, in the colder climate and as the result of low humidity in heated rooms. It is not a dermatitis; however, it might precipitate or aggravate eczema and may be seen in association with other dermatoses, such as psoriasis and ichthyosis.[1]

Xerosis usually involves the lower legs first, but could become generalized in time. The features are fissuring, cracking, scaling and dryness of the skin, which precipitate a cycle of itching and scratching.

The mechanism by which xerosis develops is not completely known. However, lack of surface lipid and low water content of the stratum corneum play the most important role. The surface film of skin, which is the first line of defense, is a layer of breakdown products of the horny layer emulsified with sweat and mixed with sebum. This surface film protects the horny layer from loss of its normal water content.[2]

Continuation of removal of this film by soap, detergents, solvents or slow secretion of sebum and sweat, which commonly are seen in elderly people and in cold climate, may disturb hydration of the horny layer and, consequently, produce chapping and dryness of the skin and increase disturbance in the defense mechanism. The pH of this surface film is acid, has mild buffering capacity and varies from person to person, from region to region and from about 4.2 to 5.6. Hydration of the horny layer of skin is the important factor in preventing dryness and chapping. Anything which reduces this hydration, such as lack of water-holding substances, which might be sodium lactate, amino acids, urea, inorganic salt and water soluble polypeptides, may cause dehydration of the stratum corneum and dryness. From a therapeutic point of view, this is an important factor because simple hydration of skin will prevent widespread dermatitis infections, scarring and other complications of itching and scratching.

Studies of the effect of temperature on extensibility of the stratum corneum and its relation to dry skin suggest that the role of low temperature is equally as important as the role of low water content of stratum corneum and chapping is not related purely to a low stratum corneum water content.[3]

Patients with this skin disorder usually are elderly persons who have been treated with various medications, including systemic corticosteroids. Various misdiagnoses have been made, such as contact dermatitis, purpura, psoriasis, neurodermatitis, drug eruption, even ichthyosis and systemic disease.

Examination of skin of these patients usually reveals fissuring, chapping and scaly areas associated with scratch marks on their lower legs. These lesions are commonly accompanied by generalized dry skin and with very superficial and minimal inflammation of the dermis (Fig. 1). These patients do not need steroid in any form, nor do they need sedatives or antihistamines. A simple hydration of skin, which can be

(Continued on page 601)

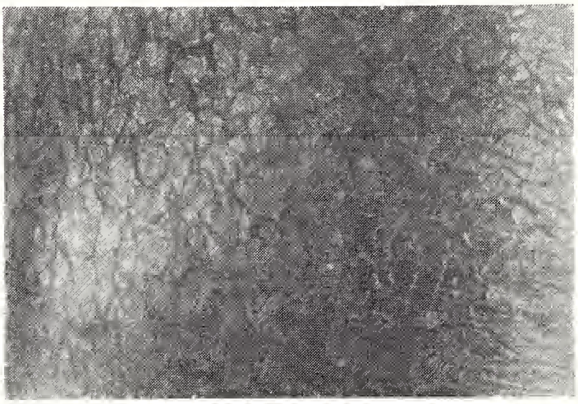

Fig. 1 Fissuring, cracking, scaling and dryness of the skin of a patient with Xerosis (Asteotosis).

JESS S. SIMMONS, M.D., ***Columbia***

Fungal Infection and Extramammary Paget's Disease of the Skin

A Deceptive Double-Diagnosis

A PERSISTENT, red, crusted lesion seen near the areola or nipple causes the experienced physician to consider Paget's disease of the breast. Extramammary Paget's disease is far more deceptive. It is particularly deceptive if the Paget's disease is obscured by candidiasis or tinea. If the organism is easily identified and cultured, then the physician may discard his natural suspicion of cancer and accept the evidence for infection alone. If the patient consults other physicians, the error is even more likely to be continued. This deception can be avoided if all persistent eczematous plaques failing to respond to normally adequate therapy are biopsied.

Many case reports of this cancerous disease have followed Sir James Paget's first description in 1874.[1] Extramammary Paget's disease has occurred in the skin of eyelids,[2] axilla,[3] vulva,[4, 5] anus,[6] scrotum,[7, 8] pubic area,[9] groin[10, 11] and the mucosa of the lower esophagus.[12] This distinctive neoplasm is derived from the cells of apocrine sweat gland ducts and from goblet cells located in the gastrointestinal tract. Associated underlying carcinomas were found in more than half of the 57 patients studied by Helwig and Graham.[13]

CASE REPORTS

Case # 1. For more than two years, a 62-year-old man had steadily enlarging red plaques about the groin, scrotum and inguinal folds with severe symptoms of burning and itching. The diagnosis of tinea cruris was made by various physicians and many creams, ointments, soaps, powders and several months of oral griseofulvin were used without benefit.

When we first saw him in December, 1967, the detailed story of extensive treatment without benefit suggested a "two diagnosis deception" and we decided to biopsy immediately. The diagnosis was extramammary Paget's Disease. Surgery was curative and the patient had no recurrence of disease when last seen a year later.

Case # 2. For five years, this 78-year-old woman experienced itching and burning of the vulvar-perineal area. Candidiasis was diagnosed by several physicians and she was treated repeatedly. Again, because the infection was oddly tenacious in spite of appropriate treatment, a biopsy was done and extramammary Paget's Disease discovered.

After intensive studies of the urinary bladder, intravenous pyelogram and large bowel studies, a three-stage surgical procedure was recommended. This was to consist of a colostomy and superficial node dissection, then wide resection of the skin lesions and grafting and, finally, a third-stage closure of the colostomy.

This patient was elderly, debilitated and had arteriosclerotic heart disease with mild congestive heart failure. After a realistic discussion about operative mortality risk, surgery was declined and symptomatic treatment continued.

Case # 3. The experience of our third patient, a 67-year-old woman, was in every important way like the other two. She had itching, burning and soreness in the perineal and vulvar areas for more than three years despite elaborate and expert treatment. Cultures and examinations of fresh scales proved an infection by candida albicans. By biopsy, we again discovered extramammary Paget's Disease.

The patient refused surgical treatment of the Paget's Disease and refused further diagnostic studies of a mass in the breast, probably carcinoma.

Especially with elderly patients, prolonged treatment without benefit may cause confusion and resistance to definitive surgical treatment, another unfortunate effect of the deceptive diagnosis.

By enhancing confidence in one diagnosis, modern medical precision increases the risk of a "double diagnosis" error. The author presents reports of three cases of fungal infection and extramammary Paget's disease that show the value of anticipating particular clinical "traps." Dr. Simmons is from the Department of Medicine, Division of Dermatology, University of Missouri School of Medicine.

COMMENT

Natural deceptions are an important problem in medical diagnosis. The problem of extramammary Paget's disease masquerading under another guise is not new. Previous case reports[14–16] have mentioned, but not emphasized, the more common deception associated with obvious fungal infection. The remedy is an alert screen for infections or eczema which do not resolve and a well-chosen biopsy or biopsies early in the course of the disease when definitive treatment is still acceptable to the patient.

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Xerosis (Asteotosis)

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achieved by a proper daily bath and avoidance of too much soap, will artifically increase the water content of the stratum corneum. Plain water bath or water to which salt (sodium chloride) or oil has been added will accomplish the goal.

In order to retain water in the stratum corneum for a longer period of time and to prevent rapid evaporation, a thin film of any kind of non-irritating lubrication, such as aquaphor, must be applied to the skin once or twice a day. This simple measure with the correct diagnosis will result in prompt benefit and will prevent widespread dermatitis and the other possible complications of injudicious use of various strong medications. The patients feel comfortable almost immediately and will be free of skin lesion within a few weeks.

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More than 9,000 medical-surgical specialists in eye, ear, nose and throat will assemble in Las Vegas, Nev., on October 5-9 for the 75th Annual Session of the American Academy of Ophthalmology and Otolaryngology. Opening the meeting at the Convention Center will be the nation's top health official, Roger O. Egeberg, M.D., Assistant Secretary for Health and Scientific Affairs, U. S. Department of Health, Education and Welfare. The week's activities will be filled with ten scientific sessions and 485 instructional courses.

E. T. HANSBROUGH, M.D., *Poplar Bluff*

Hallucinations Following Pentazocine

Case Reports

Although pentazocine has been used effectively in postoperative pain control, the author cites four cases in which the patients suffered hallucinations after receiving this drug. Although this reaction occurs in a small percentage of cases, it does suggest the need for further experimental study. Dr. Hansbrough is from the General Surgery Service of Doctors Hospital and the Department of Surgery, Kneibert Clinic.

Since pentazocine (Talwin, Winthrop Laboratories) was approved for use by the Federal Drug Administration in July, 1967, we have felt that it holds a real place in postoperative pain control. Although 30 mg of pentazocine is less effective clinically than 100 mg of meperidine (Demerol) or morphine 1/6, effective postoperative pain relief is obtained after the first 24 hours in most major surgery cases with pentazocine. It has been considered to be nonaddictive until recently. Reports from the Winthrop Laboratories, however, have pointed out that there have been a few cases of addiction after intramuscular injection and Winthrop's literature at the present time carries a warning of addiction. Also, there is warning of hallucinogenic effects from this drug, although it has been estimated they occur in less than one tenth of 1% of cases.

In my practice, I, personally, have had four patients recently who did hallucinate after receiving pentazocine. Three did so following injection of 30 mg of pentazocine intramuscularly and the fourth received 50 mg orally. In three instances, the reaction occurred after the first dose. In the fourth, reaction occurred 24 hours later when the second dose of pentazocine was administered, the first having induced sleep. There is a wide range of 26 to 77 years in the ages of these patients.

Case Reports

Case # 1. A 39-year-old white woman received 30 mg of pentazocine on the first postoperative day following a subtotal thyroidectomy for Hashimoto's disease. The patient had a feeling that her head and feet had been exchanged. She saw rainbow colors flashing, and she saw words and huge designs. She also had a feeling of trembling. This lasted for eight hours and was described by her as horrible since her entire body felt as heavy as lead and she was unable to move it.

Case # 2. A 26-year-old woman received 30 mg of pentazocine on the first postoperative night without ill effects. On the second postoperative day, following left inguinal hernia repair, she received 30 mg of pentazocine for pain about 9:30 p.m. Following this, she experienced a vision of bright flashing lights of yellow, pink and silver. She also saw slimy animals which appeared to be dead, but, nevertheless, working toward her in her vision. She had a feeling of complete immobility.

Case # 3. A 68-year-old man had a transverse colon resection for mucoid carcinoma. On the first postoperative night, he saw bright flashing lights and felt that he was rushing from city to city and in areas in which he had never been. The entire effect lasted for two hours.

Case # 4. A 77-year-old white woman with far advanced abdominal carcinomatosis received pentazocine orally. After receiving each 50 mg tablet, the patient had visual and auditory hallucinations with trees and people hovering over her, but no flashing light. This was accompanied by nausea and vomiting. She did not have this feeling after receiving the propoxyphene (Darron) or meperidine which were used as sedation for her pain.

Telford[1] selected healthy, young subjects without convulsions and administered pentazocine intravenously in three to five times the analgesic dose. Epileptiform abnormalities were recorded in one of three subjects receiving pentazocine.

Bauer[2] later showed that when pentazocine was administered rapidly intravenously in doses of 9.2 mg per kg under nitrous-oxide, convulsions were produced. Epileptiform electroencephalogram activity preceded the seizure.

Edison[3] from the Student Health Service, University of Utah, reported a case of visual hallucination in a young woman who had been an LSD user.

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J. M. C. HOLDEN, M.D., *St. Louis*

Changing Concepts of Treatment at the St. Louis State Hospital Complex

THERE HAS BEEN an increasing need in recent years for psychiatric services both in St. Louis City and surrounding areas, as well as in the state of Missouri. An even more pressing need for psychiatric facilities has existed for a much longer period of time. With the introduction of psychotropic drug therapy in the early 1950's, an important reorientation of attitudes concerning psychiatric treatment procedures evolved. This was followed by a greater awareness of the mechanisms of psychiatric illness and of the need for changes in management procedures.[1] This presentation will outline some of the changes which have taken place, as reflected by methods introduced at the St. Louis State Hospital Complex during the past 20 years. The overall history of the St. Louis State Hospital since its establishment 100 years ago is described elsewhere.[2]

CHANGING CONCEPTS IN MANAGEMENT

The basis for changing concepts in the management of psychotic illness is related to principles which have been applied for some time in other branches of medicine, viz., that a pathogen (which may be endogenous or exogenous in nature) has an effect on the organism (both psychologically and physiologically), resulting in a reaction. The type and severity of the reaction obviously depend on the strength of the pathogen and the constitutional strength of the organism. Such basic principles, taught in undergraduate classes of pathology, can be applied in all branches of medicine, now including psychiatry. It has further been established that pathogenic influences in the production of psychiatric illness may be as much endogenous as exogenous and that this is reflected, for instance, in the status of brain amine concentration as well as endocrinological function in some psychotic disorders. Likewise, the constitutional strength of the organism can be demonstrated by genetic, family and clinical studies. The degree to which the disease is expressed is the result of the interaction of these two forces.

With these principles in mind, there has been an attempt to make treatment procedures available before an illness becomes established. Deviations in mental health are more common than any other group of illnesses and cause a tremendous loss of working manhours. They also are responsible for more social and individual distress than other diseases. Prevailing attitudes are that prevention is better than cure and that the earlier an illness is detected, the more likely it can be resolved.

The principles of preventive psychiatry are not new, but only fairly recently are psychiatric treatment methods being brought into line with similar changes in other branches of medicine.[1] Particularly good examples in internal medicine would be pulmonary tuberculosis and diabetes mellitus. The provision of diagnostic centers, mobile x-ray facilities and the distribution of diabetic testing kits enable the physicians to detect these two illnesses at their earliest inception—before symptoms appear. Hospitalization, thereby, is prevented or shortened, and treatment is significantly more effective and efficient. Psychiatric treatment methods in the State Hospital programs are moving rapidly in a similar direction. The provision of counseling and outpatient services in the different local communities will encourage people to seek psychiatric treatment at the earliest appearance of disease.

Carried a step further, emergency or crisis treatment procedures in the future will be made available so that psychiatric teams may visit the patient even in his own home. This kind of approach is already in use at some centers in this country and Europe in the management of physical illness, such as acute coronary heart disease. Trained mobile teams provide intensive treatment and care in the home before transfer to hospital. Complication and mortality rates have been reduced significantly by these methods.

Similarly, in a psychiatric crisis a rapid assessment of the overall environment and personal and family situation can be made on the spot, treatment given and precipitation of a psychiatric illness often prevented.

Similar programs are being instituted for the treatment of children and adolescents with psychiatric problems, the chronic alcoholic and the narcotic drug user. The same principles apply here: these diseases can be handled much more effectively, efficiently and economically when recognized and treated in their earliest stages.

The Movement Into the Community

The St. Louis State Hospital programs are developing with the primary objectives of providing psychiatric facilities to as many people in the community as possible. The hospital is now formally operating as four independent adult units, namely, a child and adolescent unit, an Alcoholism Treatment Center Unit, a Detoxification Center and a Drug Addiction Unit. Each adult unit is responsible for the psychiatric coverage of particular geographical catchment areas. The total area covered by the hospital now includes Jefferson County, Franklin County, St. Louis County and Southwest and South Central St. Louis. The population of this area is presently over one million.

Outpatient and inpatient facilities are being established within each catchment area, and it is expected that there will be a total of ten of these in operation in the near future. Each unit provides teams of professionals to operate in these peripheral clinics serving the catchment area. Apart from physicians, these teams include social workers, psychologists and counselors. Volunteer services also have been reorientated and each team includes volunteers who live in the catchment area. These volunteers are regarded as paraprofessionals and help in establishing ties with local community leaders. Public support for psychiatric programs, thereby, is encouraged. It is anticipated that some volunteers also will participate in home visits and serve other therapeutic needs.

The objective of the psychiatric team is to make psychiatric services easily accessible to all families in the community it serves. These services are comprehensive and provide for early recognition and management of psychiatric problems of adults, children and adolescents, the elderly and the alcoholic and drug abuser. At the same time, teams will include professionals from various local agencies to define social and community pathology and its impact on psychiatric illness. If the same principles can be applied to psychiatry as to other branches of medicine, the previous lack of these facilities can possibly account in part for the relatively poor improvement and remission rates with psychiatric practice in the past. Changes in psychological and physiological homeostasis result in a partial chronic adaption to any disease process. If the patterns are not corrected relatively early, treatment becomes much more difficult. The striking success of emergency handling of psychiatric crises has already been demonstrated with battle casualties.[3] As far as St. Louis State Hospital is concerned, some 20 years ago there were no outpatient facilities at all and a patient was not seen until his disease had progressed to the point that admission to the hospital became mandatory. By then, the illness had been present for many months, if not years, prior to admission and had become well established. The principal role of the hospital, therefore, was one of custodial care with a low discharge rate. At the present, even if a patient is first seen in the admission/emergency center of the Hospital, every effort is made to treat the illness at that time to offset the necessity for admission. Table 1 shows how inpatient and outpatient services provided by the St. Louis State Hospital have changed over the past 20 years and Table 2 further indicates the continuation of the shifts in treatment facilities.

The impact of new treatments also has provided techniques for handling psychiatric patients using more of a physical approach. Psychotropic drugs now offer relief to many psychiatric patients who previously could not be reached. This also has meant that acute illness

The introduction of psychotropic drug therapy in the early 1950's brought about a reorientation of attitudes concerning psychiatric treatment procedures, a greater awareness of the mechanisms of psychiatric illness and a need for new management procedures. The author describes in detail the resulting changes that have taken place in psychiatric concepts, services and facilities at the St. Louis State Hospital Complex. Dr. Holden is Physician Superintendent at the Hospital and Associate Professor of Psychiatry, Institute of Psychiatry, University of Missouri School of Medicine.

TABLE 1

INPATIENT/OUTPATIENT SERVICES—ST. LOUIS STATE HOSPITAL COMPLEX
1949, 1969, and 1970

	Year Ending June, 1949	*Year Ending June, 1969*	*Year Ending June, 1970*
Inpatient Population	3,418	1,466	1,111
Admissions	316	1,748*	3,935*
Discharges	222	2,040†	4,046†
Admissions under Voluntary Status	0%	45%	65%
Average Length of Stay in Hospital of Patients Discharged	2,719 Days	66.5 Days‡	44 Days‡
Outpatient Clinics (Including Unit I Psychiatric Center at St. Louis County Hospital)			
Admissions	0	1,429	2,652
Interviews	0	19,215	29,638

* These figures for 1969 and 1970 include 379 and 1,190 admissions respectively to the Detoxification Center.
† These figures for 1969 and 1970 include 344 and 1,157 discharges respectively from the Detoxification Center.
‡ Excluding patients discharged from the Detoxification Center, where the average stay is 7 days.

TABLE 2

INPATIENT/OUTPATIENT SERVICES—
ST. LOUIS STATE HOSPITAL COMPLEX
June, 1970 Vs. 1949/69

	Monthly Averages 1948/49	1968/69*	*Month Ending* JUNE 30, 1970*
Inpatient Population			
Admissions	26	146	368†
Discharges	19	170	454†
Outpatient Clinics			
Admissions	0	119	268
Interviews	0	1,584	2,896

* All figures for 1968/69 and June, 1970, include those of Unit 1 Psychiatric Center at St. Louis County Hospital.
† Admission and discharge figures for June, 1970, include 109 and 112 respectively for the Detoxification Center.

can be curbed in shorter treatment periods and the patient can be returned to the community sooner. Insulin coma therapy has now been replaced by modified insulin therapy procedures, which are used as adjuncts to psychotropic drug therapy.[3] There obviously is still a place for psychoanalytical techniques in the treatment of selected patients, but these procedures have been largely replaced by organic and supportive individual and group psychotherapy. Dependency on the physician is discouraged and the patient is shown how to cope with stresses by himself rather than have someone handle them for him.

A Detoxification Center operates in affiliation with the St. Louis City Police Department. Individuals picked up on the streets in states of acute intoxication are handled not as law offenders but as medical problems by admission to the hospital. A great deal can be done physically and psychiatrically for these patients, and they are thoroughly investigated during their hospital stay. The 26-bed unit handles about 100 such admissions monthly.

An Alcoholism Treatment Center also offers long-term voluntary treatment programs for patients wishing to participate.

The same principles apply to the management of alcoholism as to other branches of psychiatry. The alcoholic, however, is more difficult to reach in the early stages of illness and poses even greater challenges to preventive psychiatry.

In 1968, a narcotic addiction program was established at the St. Louis State Hospital Complex and Missouri Institute of Psychiatry to implement the Narcotic Addict Rehabilitation Act. Heroin addicts are withdrawn using methadone and some are maintained on this drug as replacement therapy. Individual and group therapy, vocational counseling and the correction of physical disease are included in the treatment program. A crisis center operates in the city to handle emergency situations as they arise.

Management of the Long-term Inpatient

Pari passu with the movement toward preventive psychiatry, the State Hospital has had to deal with inpatients previously treated with custodial care methods alone. The advent of psychotropic drugs also has resulted in considerable improvement in these patients. The retraining of these partially disabled people is being carried out in active rehabilitation workshops and education programs. The potentials of these patients were not fully appreciated in the past, and we have shown that not only can they be trained, but that they can play an active part in the community again. Social retraining has proved a particular challenge, but equally important is employment training which enables the patient who has returned to the community to compete with others for available jobs. Even more important is the restoration of the patient's self-esteem and his return to the community as a useful member. To fulfill these goals, we recently have established a rehabilitation workshop which is now handling about 100 patients and will be expanded to include approximately 200 patients.

The same attention has been given to the education of patients with psychiatric illness. Not infrequently, the level of education is a critical factor in social readjustment. A school at the hospital employs modern audiovisual methods in the education of patients where this is indicated.

When patients have marked disability, with severe organic or personality deterioration which is unresponsive to active psychiatric treatment procedures, Nursing Home programs have been developed to more effectively provide prolonged psychiatric and physical care.

Partial Hospitalization Programs

Day-and-night care programs are established in various units of the Hospital and will be further expanded in the future. New referrals as well as long-term inpatients in the process of rehabilitation participate in these treatment programs. The principles of partial hospitalization are based on the patient's maintaining contact with the family during treatment and avoiding the pitfalls of full hospitalization. Full admission to the hospital for any kind of illness can be almost as traumatic as the illness itself, for it means a sudden removal of the moral, emotional and financial support of those closest to the patient—his family. On the other hand, the family circumstances may have been an important causative factor in the development of the illness. In these instances, full hospitalization is preferable and partial hospitalization can be applied later during the rehabilitation and readjustment phase of management. The management of each case, therefore, is dictated by individual circumstances; assessment is made only after case conferences by the psychiatrist, social worker and psychologist. As the balance between pathogen and patient changes, so will management.

The programs themselves must remain flexible enough to accommodate individual patient needs, but they are based on motivation and conditioning techniques. Educational and recr ational activities may be included. Family the apy may be utilized if interactional forces b tween patient and other family members a thought to be important.

A halfway-house facility operates on the hos pital grounds and another house has been rent ed outside the hospital to house patients. Th placement of a patient in one of these houses i again governed by individual needs, but pa tients placed in this setting usually have no fam ily at all or are from a particularly disturbin family environment. These patients work outside the hospital and live together under minima supervision.

Foster Community Programs

A foster community program has been developed over the past two years and was initially funded by a grant of $450 from the St. Louis State Hospital Auxiliary.[4] The program involves the active participation of a particular community in the rehabilitation and resocialization of patients with a psychiatric illness. The first steps of rehabilitation and retraining are completed at the St. Louis State Hospital and the patient is stabilized on psychotropic drugs. The members of the community welcome such patients as members of sponsor families in the community, and the patients participate in both the family and community life. The community and patients have a close link with a team of professionals based at the Missouri Institute of Psychiatry who follow up each patient closely. Frequent and constructive meetings are held with the community members to discuss individual patient problems and the overall program policy.

Such an approach offers considerable advantages over routine custodial care in a community setting. It provides total care in that it recognizes the personal, psychological, sociological and psychiatric needs of the mental patient. Prolonged hospitalization is associated with considerable trauma, and the effects of institutionalization have often been confused with those of the disease processes themselves. The recognition of syndromes of institutionalization emphasized the importance of redeveloping self-esteem, self-confidence and motivation, the lack of which were more the result of prolonged divorce from reality than the psychiatric illness itself.[5] The foster community program operating from the St. Louis State Hospital puts more emphasis on these aspects of resocialization than on the treatment of the illness per se.

MISSOURI INSTITUTE OF PSYCHIATRY AND ST. LOUIS STATE HOSPITAL

The Missouri Institute of Psychiatry, established in 1962 as a research and training center operating under the Division of Mental Diseases, is situated on the grounds of the St. Louis State Hospital. The objectives of the Institute are (1) to conduct research on the chronic mentally ill, the mentally defective and the brain damaged and (2) to train professionals in the field of mental health.

The Director of the Division of Mental Health also is the Chairman of the Department of Psychiatry at the Missouri Institute of Psychiatry. The result is a university research and training institute with extremely close ties to the Division of Mental Health, the St. Louis State Hospital and a regional medical program involved with total health care.

The Institute is able to provide an interdisciplinary approach to psychiatric problems. It has the ability to take a research project from the basic research testing area in animals to testing in human beings. The facilities include animal, psychopharmacology, electroencephalography, neurochemistry and human behavior laboratories as well as a clinical pathology section, a scientific laboratory and a computer center.

The basic source of funding for the Institute is through direct appropriations by the state legislature, federal granting agencies and donations from industry or private donors through the Psychiatric Research Foundation of Missouri. This is a nonprofit foundation composed of lay persons interested in promoting progress in the treatment of the mentally ill in Missouri.

Patients at the Institute are drawn from the St. Louis and other state hospital populations for full investigation and treatment and are usually those who have failed to respond to conventional treatment procedures. The Institute is a recognized Early Clinical Drug Evaluation unit of psychopharmacology branch of the National Institutes of Mental Health.

Another portion of the Institute is allocated to the development of a computer-oriented standardized system of psychiatry which is statewide in its operation.[6] Data on all psychiatric inpatients and outpatients in the state are presently recorded on standardized forms. Computer analysis of these data has already shown that specific patterns of psychopathology associated with different types of behavior can be demonstrated.

Part of the Institute's coverage is to provide general medical and surgical services to psychiatric patients. The staff of this unit is supplemented by staff members from the Missouri Baptist Hospital through a University of Missouri affiliation.

The full details of the activities of the Institute are outlined in its brochure and many publications.[7]

THE FUTURE

It is anticipated that the St. Louis State Hospital programs described will be expanded over the next few years. Many more patients will be seen at the outpatient level and comprehensive patterns of psychiatric care will be provided for each geographical area of the southern part of St. Louis City and St. Louis County and surrounding areas. The education of local authorities and the general public will establish a closer rapport between these agencies and the programs. It also is expected that psychiatric treatment procedures may even be carried into the home to handle emergencies on the spot. We do not believe that these methods will provide all the answers to present-day problems in psychiatry. We do feel, however, that such approaches are practical, realistic and in keeping with the current changes in management approaches in other branches of medicine.

The advent of psychotropic drug therapy was not only regarded by some as being a breakthrough, but a definite indication that the psychotic illnesses could be treated specifically. Unfortunately, these hopes have not been realized. We now know that the effects of these drugs are ameliorative rather than curative. Furthermore, many studies have shown that it is very difficult to categorize patients by drug effect and that drugs do not have specific actions by diagnostic or psychopathological profiles. It is expected, however, that there will be considerable progress in the next few years in the areas of stereotactic neurochemistry and neurophysiology. The development of specific drugs to remedy specific metabolic or neurochemical deficiencies is a real possibility, and suggestions that disturbances in specific brain areas are responsible for particular deviations in behavior are already being explored.[8] Scientific methodology in these areas has now become so refined that many questions involving the many psychiatric illnesses will undoubtedly be answered in the next decade. We feel that changing attitudes and the movement toward community-orientated psychiatry at the St. Louis State Hospital Complex will prepare the ground for the successful application of specific therapies as they appear.

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Hallucinations Following Pentazocine

(Continued from page 602)

Schneider[4] previously had reported bizarre behavior in rats, following large doses of pentazocine, which would be hallucinogenic in man.

De Nosaquo[5] recently reported seven cases of hallucinogenic effects following administration of pentazocine which have been reported to the AMA Council on Drugs.

Levy[6] reported one case of "colored hallucinations" in 40 cases studied resulting from 50 mg pentazocine oral tablets.

The cases reported here were all frightening, visual hallucinations with psychodelic pattern in three. Each patient expresses a strong desire not to take this drug again because of fear of further reaction.

Conclusion

Although pentazocine (Talwin) has filled a real need in postoperative pain control, there are reasons from experimental studies and from case reports which indicate that an occasional patient may have visual hallucinations which will be quite frightening to him and would prevent further use of this drug.

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Reprints: *E. T. Hansbrough, M.D.*
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Poplar Bluff, Mo. 63901

American Board of Family Practice to Give Second Examination

The American Board of Family Practice announces that it will give its *second* examination for certification in various centers throughout the United States. The examination will be over a two-day period on Feb. 27-28, 1971. Information regarding the examination and eligibility for examination can be obtained by writing to Nicholas J. Pisacano, M.D., Secretary-Treasurer, American Board of Family Practice, Inc., University of Kentucky Medical Center, Annex 2, Room 229, Lexington, Ky. 40506. Please note that the deadline for receiving completed applications in the Board office is Nov. 1, 1970.

Continuing Education Coming Events

Sept 14-18	**Postgraduate Course on Bone and Joint Roentgenology** The Mallinckrodt Institute of Radiology Stouffer's Riverfront Inn, St. Louis
Sept. 22-25	**Emergency Care and Transportation of Sick and Injured Persons** American Academy of Orthopaedic Surgeons St. Louis Medical Society Building 3839 Lindell Blvd., St. Louis 63108
Sept. 23-26	**Computer Applications in Radiology—1970** Medical Center Auditorium University of Missouri, Columbia 65201
Oct. 22-24	**Annual Fall Clinical Conference** Kansas City Southwest Clinical Society 3036 Gillham Rd., Kansas City 64108

In Memoriam

Bartels, Leo G., M.D., St. Louis, a graduate of Washington University, 1907; member of St. Louis Medical Society; age 86; died Jan. 24, 1970.

Rouse, David M., M.D., Mexico, graduate of St. Louis University, 1939; member Audrain County Medical Society; age 60; died April 9, 1970.

Patient, William F., M.D., St. Louis, a graduate of St. Louis University, 1933; member of St. Louis County Medical Society; age 60; died May 15, 1970.

Gilkey, Harry M., M.D., Kansas City, a graduate of Northwestern University Medical School, 1921; member of Jackson County Medical Society; age 75; died May 19, 1970.

Reitz, Carl H., M.D., Kansas City, a graduate of University of Tennessee, 1943; member of Jackson County Medical Society; age 63; died May 26, 1970.

Demko, William, M.D., St. Louis, a graduate of National University of Arts and Sciences, 1912; member of St. Louis Medical Society; age 81; died May 28, 1970.

Finney, William O., M.D., Chaffee, a graduate of St. Louis University, 1910; member of SEMO County Medical Society; age 84; died May 29, 1970.

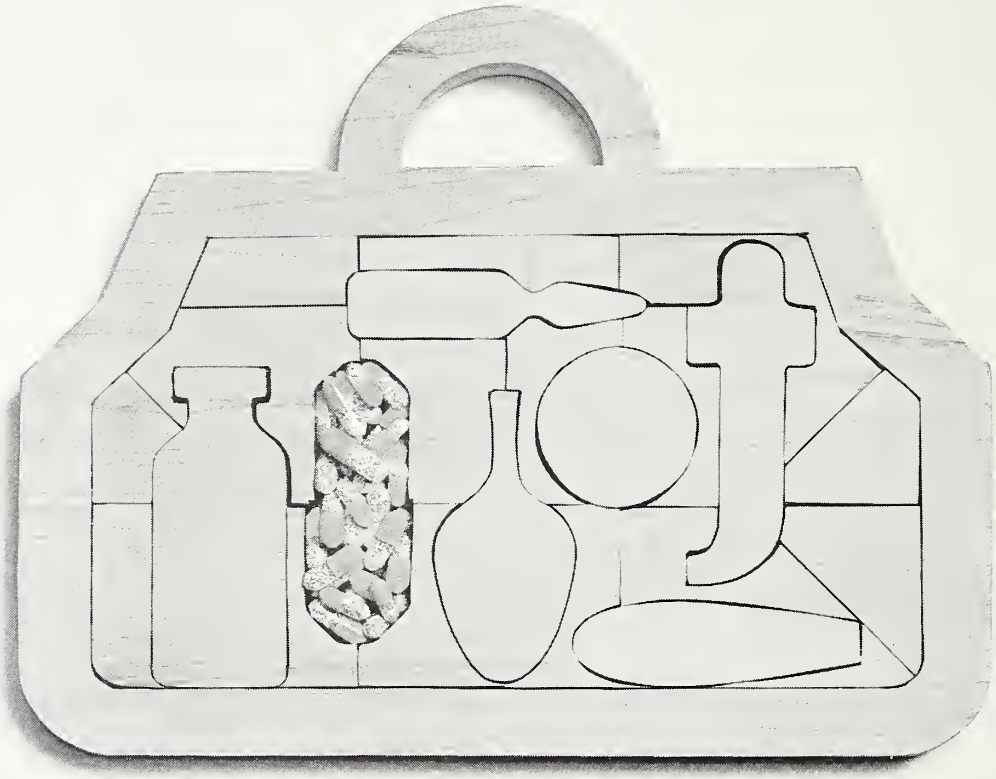
Hendren, Glenn W., M.D., Liberty, a graduate of Washington University, 1934; member of Clay County Medical Society; age 66; died May 30, 1970.

White, Orville O., M.D., St. Louis, a graduate of St. Louis University, 1921; member of St. Louis Medical Society; age 75; died May 30, 1970.

Davis, F. L., Sr., M.D., St. Louis, a graduate of Washington University, 1908; member of St. Louis Medical Society; age 86; died June 1, 1970.

Hayden, Loyola F., M.D., St. Louis, a graduate of St. Louis University, 1930; member of St. Louis Medical Society; age 69; died June 6, 1970.

Cooper, John H., M.D., Kansas City, a graduate of University Medical College, 1901; member of Jackson Medical Society; age 92; died June 21, 1970.



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President's Message

It is now official. The American Medical Association's House of Delegates has voted in favor of a $40 increase in dues for next year instead of the $80 as recommended by the Board of Trustees.

As I pointed out in the July issue of Missouri Medicine, I believe that the dues increase is needed and can be justified; but it seems to me, it can only be justified if the American Medical Association produces an ongoing program to improve medicine's image and to counter such anti-medicine programs as those that were carried on the CBS-TV network. The AMA must go on the offensive.

In the next few months, you will be hearing a great deal more about what the AMA is doing for you now and what the organization is planning to do for you in the future.

A $40 increase in AMA dues is an amount which all physicians can afford. But I, like many of you, will want results for our money.

• • •

I was privileged recently to attend a most interesting social hour and dinner in Jefferson City at which time the Missouri State Medical Association joined in entertaining the Jefferson City Press Corps—the men and women who are active in covering the General Assembly and other news from our Capital City.

Joseph L. Fisher, M.D.

It was a most interesting and, I believe, rewarding evening for those of us who represented the Medical Association.

We had a chance to visit with key representatives of the state's news media, and although we were not really there to talk shop, we did have a chance to give them our profession's viewpoint on a number of items.

It is my judgment that programs of this type in Jefferson City should be continued in the future.

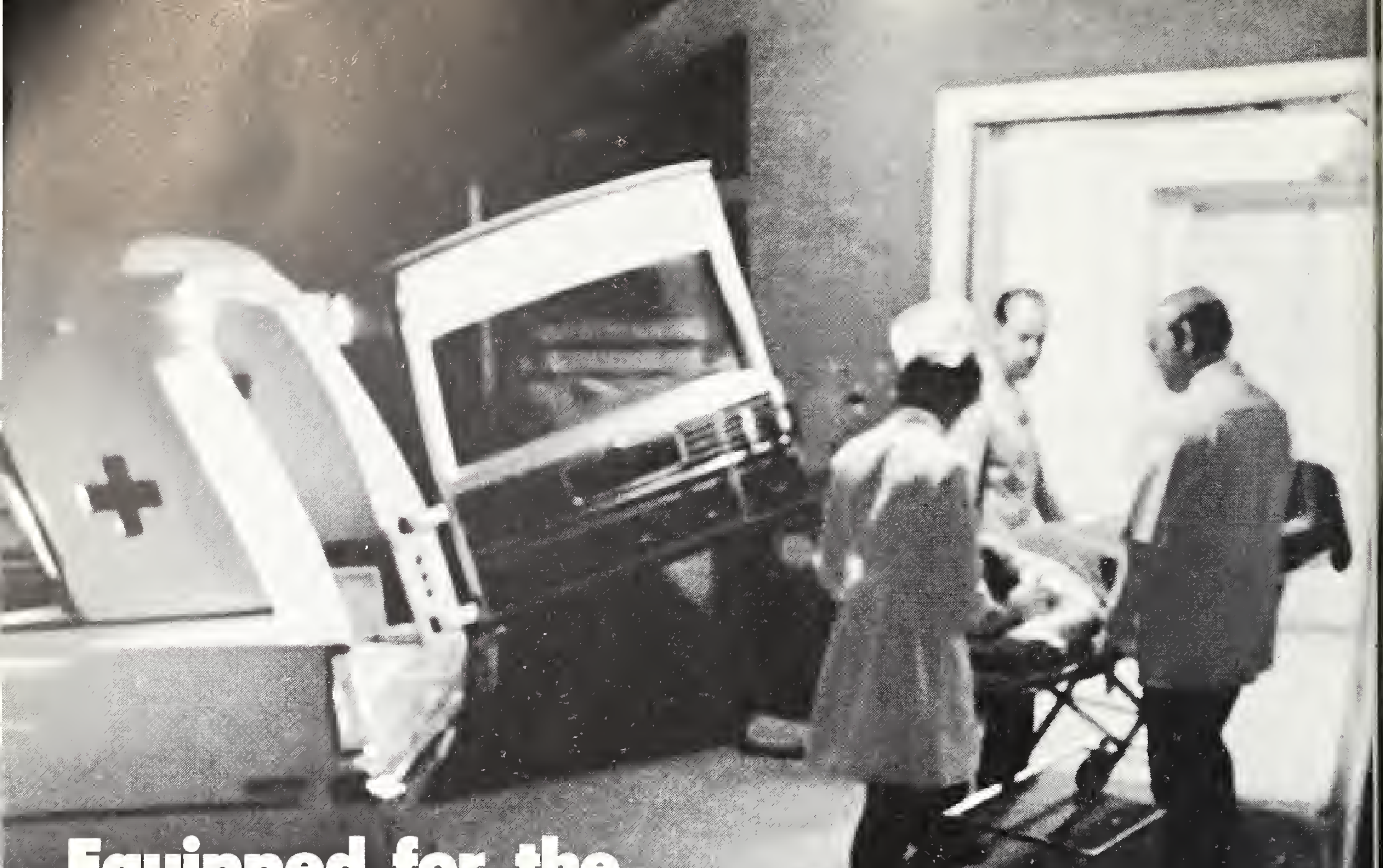
I would encourage all county medical societies in Missouri to consider holding dinner meetings with the press representatives in their communities to promote better understanding between our profession and theirs. I would suggest that newspaper publishers, editors and working press should be invited to such dinners along with general managers, news directors and newsmen from television and radio stations.

The Jefferson City dinner was held on an informal basis without a program and format to give those in attendance the opportunity to "get some things off their chests." Decisions on whether or not to have a formal program would be up to the individual society.

We of the medical profession need to become better acquainted with the representatives of the news media so that they will find it easy to contact us for information on matters in our field before "jumping off the deep end" on questions concerning medical matters and the public health.

There is a real opportunity for physicians to improve our press relations if we will take the time to get to know the men and women of the news media.

Again, I urge county societies of all sizes to consider holding a news media dinner as soon as possible. Members of the association staff in Jefferson City will be interested in knowing the details of such events as well as any local "feedback."



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CONTRAINDICATIONS: Thyrotoxicosis, acute myocardial infarction.

SIDE EFFECTS: Side effects are secondary to increased rates of body metabolism: sweating, heart palpitations with or without pain, leg cramps, weight loss, diarrhea, vomiting and nervousness. Myxedematous patients with heart disease have died from abrupt increases in dosage of thyroid drugs. In most cases, a reduction in dosage followed by a more gradual adjustment upward will indicate the patient's dosage requirements without the appearance of side effects.

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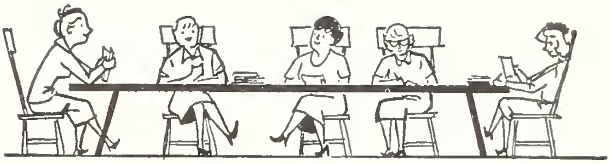
Woman's Auxiliary



"Back in my day . . !" "When we were in school . . !" "Ten dollars a month was all . . !" "Why, I remember when . . . . . !"

These cliches are heard frequently when physicians and their wives get together and share memories. However, old cliches are not funny, enlightening or interesting to younger people who are listening. They have their own set of special problems which they must face today. *Yesterday* cannot be their answer, nor can it be ours.

Mrs. William M. Walker
President

The keynote speaker at our National Auxiliary Convention, Mrs. Louise Bushnell, told us we must "clear out" our own "cerebral cobwebs" and the cobwebs of others. The time has come when we must work hard if we are to maintain the freedom and latitude of our country. We still enjoy the four freedoms in the United States, but people in 80% of the rest of the world do not enjoy these same freedoms.

Making choices is neither simple nor easy. Mrs. Bushnell pointed out, however, that control of our country will be inevitable if we are not willing to become actively involved by making our choices and supporting them. She stated that, whether we like it or not, we all are desperately needed in active involvement of our lives, particularly in the elections this year. The frustrations we feel must not deter us from making decisions regarding issues or choosing candidates.

As an Auxiliary, we do NOT support specific candidates. We DO urge our members to join AMPAC and MMPAC with their husbands. We urge them to support the candidates of their choice with active volunteer service and we urge them to be informed on the issues.

Physicians and their wives are opinion makers and should use this asset to the best advantage. Take time to listen, read and talk about the candidates and the election. Talk about them with your family, friends and patients. Tell people how you feel about a candidate or an issue and tell them WHY you feel as you do. Explain why you believe a candidate will make a good and effective representative for you, your community and state.

Our county auxiliary legislation chairmen are ready to help and provide information to any member. Physicians' wives who live where there is no county society auxiliary or are members-at-large should contact our State Legislation Chairman, Mrs. Benjamin F. Smith, No. 5 Fordyce Manor, St. Louis 63131. She will be happy to work with them. (Your wife can become a member-at-large simply by sending her $6 dues to Mrs. Donald E. Eggleston, 410 North Rutherford, Macon 63552. Please urge her to do so.)

The MSMA Woman's Auxiliary stands for good citizenship. Let's not lose our right to criticize and express our opinions by voiding our citizenship. Let's all accept opportunities to serve when they are offered to us and then work hard.

The campaigns are off and running right now. WHO will get your vote and your support? Think about it and then DO something about it. . . . today!

EDITORIALS

THOMAS R. (TOM) O'BRIEN

Members of the Missouri State Medical Association feel a deep personal loss in the death of Thomas R. (Tom) O'Brien, former executive secretary of the organization.

For 21 years, from 1944 to 1965, Tom O'Brien served the Missouri State Medical Association as its executive secretary with dedication and distinction. He continued to serve the Association well in recent years as a member of the staff after ill health forced his retirement as executive secretary.

Over the years, Tom O'Brien won not only the respect and admiration of the membership of the MSMA, but, also, the affectionate personal regard of physicians and medical society executives throughout the nation. His wise counsel was sought often.

He represented the interests of medicine and public health before the Legislature and other branches of government in Jefferson City, as well as in municipal and county jurisdictions, in a manner that gained for medicine the esteem and informed understanding of public officials at all levels.

Tom O'Brien also guided the development of Missouri Medical Service (St. Louis Blue Shield) from the smallest beginning to its present multimillion dollar annual operation in the interest of its members and Missouri physicians and was its executive director at the time of his death.

Tom O'Brien is missed by Missouri physicians whom he served so well.

'THE CASE FOR PROFESSIONALISM'

"'Profession': a calling requiring specialized knowledge and often long and intensive academic preparation."

"Among the many valuable things on the verge of disintegration in contemporary America is the concept of professionalism—by which I mean to suggest a condition determined by training, experience, skill and achievement (by remuneration, too, but this is secondary)." Thus Robert Brustein, Dean of the Drama School at Yale University, introduces his superb article in a recent issue of *The New Republic*. This is writing which has the greatest pertinence for a concerned public and gives some reassurance to our profession about ourselves. We are not all concerned as a special profession, but for professionalism in its generic sense. Brustein sounds an alarm that we be not misled by our times, and re-emphasizes the warning of Plato to his own countrymen in Book VIII of THE REPUBLIC:

> "In such a state of society (a state of democratic anarchy), the master fears and flatters his scholars, and the scholars despise their masters and tutors; young and old are alike; and the young man is on a level with the old, and is ready to compete with him in word and deed; and old men condescend to the young and are full of pleasantry and gaiety; they are loth to be thought morose and authoritative, and therefore they adopt the manners of the young. . . ."

It is pure nonsense regardless of how widely the error is held that an amateur is co-equal or, as some would say, "superior" to a professional who has mastered the science and art of his calling. Brustein uses examples drawn from medicine in several instances. He ponders whether medical students will insist on making diagnoses by the majority vote of the first year students, but he concedes that all things are possible. He questions whether a medical student facing his own operation should refuse anesthesia so that he might adhere to the principle of participating in the decisions which affect his life. Should this same student choose the surgeon's instruments and tell him precisely where to cut? In Medicine, and in all the professions, there is a corpus of knowledge for which there is a moral and intellectual responsibility of transmission by the professional. There is a justification in the ends, and there is a justification in the means. Any society is more than the sum of the capabilities of its individual members, but not less than the skill and achievements of its members. The more capable the members of a society, the more capable the society itself. There is justification in the means. Questioning the *relevance* of material is opposed to the very nature of learning, the role of the university or scholarship. This does not mean that we fail to recognize that many of the great ideas in the history of civilization and in science are contributed by men under 35 years of age, and frequently those in their 20's. It is essential that the young mind be given the opportunity to express ideas; the amount of repression which is inevitable in any educational process must be minimized, and no one is challenging this concept. But in order to express ideas, or deal with the material of any science, there is a basic corpus of material, the relevance of which the beginner could not possibly understand. Philosophically, introducing the concept of relevance has a self-defeating feedback which in the extreme case is complete Nihilism. Says Brustein in his best form, "It is often observed that the word 'amateur' comes from the Latin verb to love—presumably because the amateur is motivated by passion rather than money. Today's amateur, however, seems to love not his subject but himself, and his assault on authority—on the application of professional standards and judgment of his intellectual development—is a strategy to keep this self-love unalloyed." The greatest aphorism from Shakespeare is, "Nothing is right or wrong, but thinking makes it so." Robert Brustein and *The New Republic* have done well to sound a call for the reaffirmation of the truth and validity of the concept of professionalism, to reassess its values and not to be misled by the false amateur against whom Plato so aptly warned.

Rhode Island Medical Journal

VALUE OF THE COUNCILOR DISTRICT MEETING

There has been difficulty among several of our local members trying to recall the last time the Tenth Councilor District held a joint meeting. I am of the opinion that due to the good offices of several hard workers in our district, the meet which we managed to have at the Ramada Inn, June 7, was a notable success. We cannot overlook the fact that our local Woman's Medical Auxiliary had no small part in the success, and their efforts, combined with good weather, allowed us to secure a better than expected attendance.

Albeit that the program was of value, I feel the prime gain to our district in such a meeting is in the members relating to each other. After all, the problems of medicine in our area are common and the more we can work as a team, the easier is the task of problem solving.

It is unlikely that any meeting such as we have hosted here for the district would not find dissenters in the membership. We certainly found that to be the case. No worthwhile cause ever happened without "the loyal opposition" rearing its head. This, after all, is the American system and is to be fully encouraged. My only regret is that the dissention was of a negative character, so far as I am aware. I would remind you that this is precisely what has led organized medicine into the defensive corner we face nationally today. A more positive voice of alternative opinions would enable better balance, as I see it.

Many of our local society are anticipating future Tenth District Meetings, perhaps on an annual basis and at other localities in our district. I know the State Association is encouraging such get togethers. Only through such means can we go to the annual state meeting galvanized together, presenting a common front.

I am personally gratified at the good attendance and hopeful that this sort of thing shall continue in future years.

GORDON M. NUNNELLY, M.D., President
Cape Girardeau County Medical Society
Reprinted from *The Cape County Journal*

Bi-State RMP Grant to Fund Hospital Library Network

Bi-State Regional Medical Program has been awarded a $70,000 grant from the U.S. Department of Health, Education and Welfare to implement a hospital medical library and information network in the region defined as eastern Missouri and southern Illinois. The grant covers the first 17 months of a three-year plan previously approved by the Program's 65-man regional advisory committee and designed to respond to needs expressed by the region's hospitals.

Effect of the network will be to expand services which hospital libraries, regardless of remoteness, can offer their health personnel. In some cases, this will enable the hospital libraries to provide services previously available only in large medical centers, according to Dr. William Stoneman, Bi-State RMP Coordinator.

County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

BUCHANAN COUNTY MEDICAL SOCIETY

For the 18th consecutive year, the Buchanan County Medical Society and the Northwest Missouri District Dental Society held a joint dinner and program. This year, 64 physicians and dentists attended the event at the St. Joseph Country Club on May 6.

Charles Dunlap, D.D.S., Professor and Chairman of the Department of Pathology at the University of Missouri-Kansas City Dental School, was the guest speaker. His topic was "Oral Manifestations of Systemic Disease."

Dr. Owen W. D. Craig, President of the Medical Society, presided jointly with Dr. N. L. Cleveland of Fairfax, President of the Dental Society. Arrangements for the dinner and program were made by Dr. Philip C. Lehman, program chairman for the physicians, and Dr. George T. Hopkins, program chairman for the dentists.

E. F. BUTLER, M.D., *Secretary*

GRAND RIVER MEDICAL SOCIETY

The May meeting of the Grand River Medical Society and its Woman's Auxiliary was held at the Strand Hotel in Chillicothe on May 14.

George Mandler, M.D., Chillicothe, a member of the Medical Society, discussed "Diseases of the Voice Box." His informative discussion was illustrated by colored slides depicting the many manifestations of disease in this area. Treatment of some of the conditions was considered.

The Woman's Auxiliary program was presented by two beauticians from Trenton who demonstrated the use of wigs and wiglets.

After a short business session, the meeting was adjourned.

FRANK R. DALEY, M.D., *Secretary*

FIFTH DISTRICT

COUNCILOR
JAMES C. COPE, M.D., COLUMBIA

BOONE COUNTY MEDICAL SOCIETY

The Boone County Medical Society met at Boone County Hospital in Columbia on May 8 with President Henry M. Hardwicke presiding.

The minutes of the April 7 meeting were read and approved.

Dr. Allen of the Committee on Lay Projects reported on the detection program of sight and hearing defects being sponsored by the Downtown Optimist Club. He also reported on the Diabetes Detection Program for the Committee on Public Health and Legislation and stated that a joint meeting was scheduled for May 28 at Lewis Hall at 7:30 P.M.

There was a brief discussion regarding the schedule for programs on KOMU-TV in Columbia. Dr. James C. Cope is scheduled to discuss "Medicare and Medicaid" on May 14 and Dr. Norman D. Asel will talk about "Summer Itch" on June 11.

Dr. Allen then reported on the status of the brochure, "Physicians at Your Service," which pertains to the availability of medical care in the community. Revisions of the brochure were presented and approved. The recommendation was made that the Columbia Chamber of Commerce be placed on a one-year trial basis to provide newcomers to Columbia with this brochure. The Chamber of Commerce will contact all physicians to determine if they wish to participate in this community service. The Chamber will make a monthly report to the Medical Society regarding physicians who wish to be included and, also, the utilization of the service. The motion was seconded and approved.

Dr. Tinsley discussed the attitude of the Society regarding "third party" payers requesting medical information of records of the physician and hospital.

There being no further business, the meeting was adjourned.

NORMAN D. ASEL, M.D., *Secretary*

SIXTH DISTRICT

COUNCILOR
WILLIAM D. BRADSHAW, M.D.,
CLINTON

LAFAYETTE-RAY COUNTY MEDICAL SOCIETY

The Lafayette-Ray County Medical Society's meeting on May 12 was held at Maib's Cafe in Lexington with eight members and guests present.

After dinner, a business meeting was held. Correspondence and minutes were read and acted upon.

A film sponsored by the American Medical Association concerning sex education was shown. After reviewing the film, the majority of the members recommended that it does not merit showing in the future.

WAYNE BOYDSTON, M.D., *Secretary*

WEST CENTRAL MISSOURI MEDICAL SOCIETY

The monthly meeting of the West Central Missouri Medical Society was held at Irene's Harvest House in Harrisonville on June 4.

The scientific portion of the program was presented by Burnell Landers, M.D., of Kansas City, who discussed gastroscopy. Dr. Burnell presented an interesting discussion about the visualization of gastric and esophageal lesions. His program was informative and appreciated by everyone in attendance.

The business meeting was called to order by President Roy Pearce of Nevada. It was moved by Dr. A. W. Eklund of Pleasant Hill that the West Central Missouri Medical Society participate in the 1971 Greater Kansas City Physicians Directory. The motion was seconded and approved.

President Pearce then discussed several resolutions that were brought before the House of Delegates at the MSMA Annual Session in April. They concerned the licensing of osteopathic physicians and accepting their membership in county societies, emergency medical care for rural areas and rural health manpower shortage, the possibility of trained medical assistants and the drug abuse committees.

The next Society meeting was discussed and it was decided that it will be held late in August or early in September, the date to be determined later. Dr. U. John Torontow of Nevada will be in charge of the program which will be directed to all phases of high school athletics and the medical care of their injuries. The meeting will be held at the Country Club in Nevada.

There will be no monthly meetings during the summer months.

CURTIS W. LONG, M.D., *Secretary*

TENTH DISTRICT

COUNCILOR
EUGENE T. HANSBROUGH, M.D.,
POPLAR BLUFF

MINERAL AREA COUNTY MEDICAL SOCIETY

The Mineral Area County Medical Society met in the Hoctor Building of the State Hospital in Farmington on May 28.

The meeting opened with a scientific presentation on "Respiratory Distress Syndrome" and "Fetal Distress" by Paul Byrne, M.D., Professor of Pediatrics at the St. Louis University School of Medicine and Neonatologist at Cardinal Glennon Hospital in St. Louis.

Following Dr. Byrne's excellent presentation and a discussion period, the business meeting was called to order by President Andrew Fraser. The minutes of the last meeting were approved.

Dr. Chastain reported that he will attend a meeting of the Voting Board of Blue Shield late in June. Some members expressed distress regarding the Blue Shield policy of refusing to pay for the first day's hospital charges. More distress was expressed, however, regarding the Blue Cross policies concerning hospital utilization by Medicare patients. Dr. Jack Mullen recommended that hospital utilization review committees report any unfortunate experiences they have had with Blue Cross to the special committee appointed by the Missouri State Medical Association to review relationships between the Medical Society and the St. Louis Blue Cross program.

Dr. Chastain reported that it was anticipated that the AMA might increase dues to $150 per year. Opposition to this action was expressed by many members. It was moved by Dr. Mullen and seconded by Dr. Kirby Turner that the Mineral Area Medical Society go on record as strongly opposing any increase in AMA dues and that the Mineral Area Medical Society so notify the office of the MSMA and the Delegates to the AMA Annual Session. The motion was passed unanimously.

Members and guests who attended the meeting were Drs. Tom R. Burcham, Jr., F. Richard Crouch, Jack Mullen, Charles H. Appleberry, Marvin Grossman, W. Paul Dennis, Richard A. Fraser, William Ford, Arat, Kirby L. Turner, Emmett F. Hoctor, Robert A. Huckstep and C. W. Chastain.

C. W. CHASTAIN, M.D., *Secretary*

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The Council Reports

(Continued from page 582)

cal on several programs.

Dr. Fisher stated that Dr. Edwards, President of St. Louis Medical Society, had spoken to him about updating fee schedules, taking into consideration not only the increased costs of medical care, but also the cost of living index. He said that Dr. Edwards proposed that not only Medicare and Medicaid fees be revised, but also that the UCR fees in all categories of service be revised.

Dr. Mayer, Fourth District, reported that the annual Legislator-Physician dinner, sponsored by the St. Louis County Medical Society, was held on April 10 at Stouffer's Inn in St. Louis. Approximately 200 persons attended, including about 15 legislators. Unfortunately, many of the legislators did not attend because of labor difficulties at the Inn. He said the occasion was a fair success.

Mr. Mothershead called attention to the award from the Missouri Press Women to Miss Jean Duensing for editing Missouri Medicine. On motion of Dr. McCraw, duly seconded, the Council voted to send a letter of congratulations to Jean Duensing for her award.

Dr. Cope, Fifth District, reported on a meeting with representatives of St. Louis Blue Cross and physicians from the Boone County Hospital staff and Medical Society regarding Medicare problems. He stated that a physician has been employed by Blue Cross two hours a day so far and possibly may be employed full time to aid in adjudicating Medicare cases. Many problems concerning long term cases, demands for complete histories, etc. were discussed. He stated that Blue Cross refused to consider the AMA type of discharge summary which had been suggested, stating they would still require histories. He said the meeting adjourned after about two hours and apparently little was accomplished.

Dr. Bradshaw, Sixth District, reported concern over the lack of medical personnel in his area, increasing malpractice problems and the need for assistance with CHP.

Dr. Chandler, Seventh District, called attention to a full page ad which appeared in the *Kansas City Times* in regard to the new medical school in Kansas City. The Executive Council of Jackson County authorized the expenditure of $2,400 to pay for the ad which was endorsed by 80 health organizations. He also mentioned that through the efforts of Mr. Allen Smith and a letter written to CBS in regard to the recent controversial TV programs, Station KCMO is providing 30 minutes time for rebuttal on June 30 at 9 PM. Four physicians will be on the panel with Allen Smith as moderator and Dr. Benoit as one of the panelists. It is planned to give a positive presentation on what medicine is really doing.

Dr. McAlhany reported that the Eighth Councilor District will have a meeting on Monday, May 25 at the Holiday Inn in Springfield with Dr. Wilbur of the AMA and Dr. Fisher being the featured speakers. He also mentioned that Mr. Baker of St. Louis Blue Cross visited Greene County recently and explained some of the directives of the Social Security Administration in regard to Medicare payments.

Dr. Hansbrough stated that the Tenth Councilor District meeting will be held on June 7 with Senator Symington and Dr. Fisher as guest speakers.

The Chairman then said that according to the new section of the Constitution and By-Laws pertaining to the restructuring of committees and commissions, Subsection c. states that the Chairman of the Council shall appoint each year an appropriate Councilor to serve as advisor to each respective Commission. Accordingly, the Chairman made the following appointments: Commission on Interspecialty Medicine, Dr. Robert Mayer; Commission on Medical Economics, Third Party Medicine and Governmental Relations, Dr. John Martin; Commission on Public Affairs, Dr. James C. Cope; Commission on Continuing Education and Health Manpower, Dr. E. T. Hansbrough; and Commission on Medical-Legal Affairs, Dr. Howard J. McAlhany.

FUTURE MEETINGS

Mr. McIntyre reported that several requests had been received from various interests regarding exhibit space at our annual sessions. He said he had checked other state medical societies and found that several had fairly broad policies in accepting exhibits. After considerable discussion, and on advice of legal counsel, it was decided that since our meetings are scientific, our exhibits should contribute to this basic concept. It was recommended that the status quo on types of exhibits be maintained.

HONOR GRADUATE AWARDS

Mr. Tom Fox reported that annually the Missouri State Medical Association presents a $100 U. S. Savings Bond and a Certificate to the outstanding graduate from each of the three medical schools in Missouri. This year's awards will be presented to the following: Wilfred W. Cox, Smithville, University of Missouri School of Medicine, Columbia; Thomas F. Barrett, St. Louis, St. Louis University School of Medicine; and Alexander L. Miller, Greenwich, Conn., Washington University School of Medicine. The presentations will be made early in June at the time of graduation at the various schools.

1971 OFFICERS CONFERENCE

Mr. McIntyre stated that the 1970 Officers Conference was held in conjunction with the Council meeting last January and worked out very well. It was suggested that the Officers Conference be placed under the supervision of a committee or commission to help in planning the program. After discussion, on motion of Dr. Stricker, duly seconded, it was decided that the Officers Conference be placed under the supervision of the Commission on Public Affairs and that the Conference again be held in conjunction with the Council meeting in February of 1971.

ANNUAL SESSION DATES

Mr. McIntyre reported that annual session dates are becoming more difficult to secure each year and must be selected four or five years in advance to get the dates desired. He gave the dates for 1971 and 1972, the possible dates for 1973 in St. Louis and a tentative date in 1974 in Kansas City at the Muehlebach Hotel. Dr. Miller stated that barring labor troubles, a number of new places could possibly be available in a couple of years and, perhaps, we might be able to wait until we can consider them. It was pointed out that a tentative hold could be placed on the dates listed, particularly the 1974 dates in Kansas City, with no obligation. After discussion, on motion, duly seconded, it was agreed that a tentative hold be placed on the dates of April 25-28, 1974, at the Muehlebach Hotel. If better facilities do not become available, the Executive Committee can make a firm date.

EMPLOYEES' PENSION PROGRAM

Mr. McIntyre mentioned that an amendment to the Employees' Pension Program, as directed by the Council, has been drawn up by legal counsel to be officially signed. It would raise the cut-off date for any employee from age 60 to age 61 in figuring the average of the five highest years of income for determining retirement income. The amendment also would permit the employee, with the consent of the employer, to elect to receive any payments by reason of his prior, early or late retirement in a lump sum. On motion of Dr. McAlhany, duly seconded, this amendment to the Employees' Pension Program was approved.

NEXT COUNCIL MEETING

Dr. Miller, President-Elect, extended an invitation to the Council, Officers and Staff to hold the fall Council Meeting in Kansas City on Oct. 2, 3, 4, 1970. Friday, October 2, will involve special activities. Saturday and Sunday, October 3 and 4, will be devoted to business, as usual. The Chairman, on behalf of the Council, accepted Dr. Miller's invitation.

PEER REVIEW

Dr. Froelich, Chairman of the Ad Hoc Committee on Peer Review reviewed the minutes of the meeting held in the Headquarters Office on April 19, 1970. The Committee agreed that it should recommend to the Council that regional peer review committees be established to investigate deviations from the norm and to offer judgments on the propriety of fees, quality of care rendered and utilization of care. It is intended that third party carriers *or* county medical societies may refer to the regional committee problem cases for the purpose of:

1. Assisting third party carriers in maintaining quality care on a usual, customary and reasonable fee basis;
2. Assisting county medical societies in providing fair and just consideration of constituent physicians by third party carriers *after* the county society has reviewed the case in question.

In general, it is intended that the regional committee be an arbitrator and guide between physicians and third party carriers.

The Committee recommended that the state of Missouri be divided into six peer review regions as follows:

Peer Review Region	*Councilor Districts*	*Welfare Recipients*	*M.D.'s*
A	1, 6 and 7	52,541	1,316
B	2	10,420	75
C	3 and 4	86,491	2,598
D	5	10,242	410
E	8 and 9	38,253	412
F	10	42,186	239

Region A is generally that area already mediated by the Kansas City Blue program and is left undisturbed. It is the opinion of the committee that this area is already functioning in an excellent manner and should not be disturbed. The other regions have been chosen primarily to conform with Councilor Districts.

The regional committees would be composed of five, paired, proportionate specialty members appointed by the Councilors. It is recommended that each Committee elect Co-Chairmen. All Regional Committees will have access to specialty society review committees.

It is recommended that a five-man State Policy Coordinating Committee be appointed by the Council. The duties of this committee will be to (1) direct action of Regional Committees, (2) advise Regional Committees, (3) prepare and disseminate educational material brought forth by Regional Committees and (4) report to and be responsible to the MSMA Council. The members of this Committee should not be members of Regional Committees.

Dr. Froelich said the Committee felt that at this time, it was difficult to prepare a detailed budget because of lack of statistics. The Committee recommends that full time administrative staff, including secretarial help, be employed and that per diem and travel costs for members of the District Review Committees be paid. The Committee estimated a budget of $50,000.

The Committee also recommends that the Council obtain legal and accounting recommendations on the handling of funds. Perhaps a separate not-for-profit Foundation could be chartered.

The Committee considered the following methods of financing the peer review structure: (a) A per case review charge, to be paid by third party carriers or county medical societies; (b) A per welfare recipient charge, i.e. (if state has 240,000 welfare recipients, peer review for Medicaid would be furnished to the Division of Welfare for a flat annual rate per recipient); (c) Annual assessment of members of MSMA; (d) Regional Medical Program funding.

Dr. Froelich stated that he and Dr. Bregant, along with Ray McIntyre and Royal Cooper had met in the offices of Proctor Carter to discuss the above plan in relation to Medicaid. Mr. Carter would be willing to assist in the financial needs, if the money is available. He further endorsed and encouraged expansion and implementation of this peer review mechanism.

"Mr. Davis, you'll have to give up wine and women, but you can sing all you want to!"

It was reported that the AMA Legislative Department has proposed and drafted legislation for a program called PRO (Peer Review Organization) to be introduced in Congress. This program defines Peer Review and would provide for agreements between state medical societies and the Secretary of HEW for the establishment and operation of a peer review program under Part B. The legislation would authorize state medical societies to commission and regulate review panels. The expenses of this program would be reimbursed from the Part B Medical Insurance Trust Fund.

After considerable discussion by all the Councilors present, it was agreed that the Peer Review Region "B" and "D" be grouped together in view of the small number of physicians in Region "B," which would include Councilor Districts #2 and #5. Peer Review Region "C" would remain the same; Region "E" would become Region "D"; and Region "F" would become Region "E."

On motion of Dr. Bradshaw, duly seconded, it was agreed to accept the Peer Review Regions as amended. It also was agreed, on motion of Dr. Cope, duly seconded, that the President be empowered to appoint a five-man State Policy Coordinating Committee.

The Chairman directed the Councilors to submit the names of their Peer Review Committee appointments to the State Office not later than July 1, 1970. In view of these new committee appointments, the present Ad Hoc Committee on Peer Review is dissolved.

Discussion followed regarding methods of funding for the estimated budget presented by the Committee. It was suggested that if all physicians would forego 1% of their fees from Medicaid, this could provide a budget of $70,000; or if they would forego three fourths of 1%, matched by Medicaid, this could provide more than $105,000. It also was suggested that funds be requested from Regional Medical, Comprehensive Health Planning and the Blue Plans in both Kansas City and St. Louis, etc. It also was suggested that the Council command a certain amount of money to secure the service of the proper administrative personnel.

On motion of Dr. Fisher, duly seconded, the Council approved investigating and securing monies immediately from (1) the Blues in Kansas City; (2) the Council consider appropriating additional monies to launch this program; and (3) investigate, through this five-man State Coordinating Committee, the possibility of funding through the Regional Medical Program and the Welfare Department in Jefferson City and the possibility of apportionate fees and matching monies from the Welfare Department.

REPORT ON LEGISLATIVE AFFAIRS

Dr. Matthews, Chairman of the Committee on Legislative Affairs, gave the following report:

He stated that the third Special Session of the 75th General Assembly is underway and members of the Legislature may consider only that legislation which is suggested by the Governor. He said that there are four bills which MSMA has been watching closely.

The House Appropriations Committee added $4,026,100 to the appropriation for the University of Missouri system to provide the state's share to construct a medical school in Kansas City. This same amount was approved by the full House. Dr. Fisher sent a letter to all legislative leaders, the Governor and Lieutenant Governor at the opening of the Special Session reiterating the support of the MSMA for the Kansas City School and expressing hope that the money will be found to fund the project. Jackson County Medical Society was principal supporter of a full-page advertisement backing the school appropriation which was printed in the *Kansas City Times*. Copies of the advertisement with a cover letter from the Jackson County Society were addressed to all members of the Legislature, shipped to Jefferson City by air freight and placed in the mail boxes of all legislators by members of our staff.

Dr. Matthews indicated that a bill has been introduced which would correct present defects in the drunken driving test bill. Dr. John Crowe of Cape Girardeau and Dr. Allen Klippel of St. Louis County, both members of the MSMA Commission on Public Affairs, appeared at a House Committee Hearing to support the measure.

A bill calling for the licensing of nursing home administrators under their own board was introduced at the Governor's recommendation. It was necessitated by a new federal regulation and non-compliance by Missouri could lead to a loss of some Medicaid funds. The position of this Council and of the House of Delegates that such licensing should be under the Board of Health was presented to the bill's sponsor, Representative Charles Dickey of Mexico, along with our reasons. The bill has been amended somewhat in committee, but still calls for a separate board.

A so-called model bill concerning drug abuse was introduced in the House of Representatives, but the Judiciary Committee decided the bill was far too long and complicated and cut it down from more than 35 pages to about seven pages. The measure still is awaiting action by the House.

Dr. William Allen gave a brief run-down on federal legislation regarding drug abuse which was introduced in Congress by the Justice Department and which gave the Attorney General's office the authority to determine which drugs would be on the list included under this legislation. He indicated that this proposed federal legislation also gave authority to the Justice Department to require that each physician keep a definite record of every dose of the drug, to whom he gave it and when it was to be taken: if he failed to keep these records, he would be subject to criminal action and would have no recourse against it. Mr. McIntyre stated that the AMA has definitely been opposing legislation. Dr. Matthews indicated that the staff would keep an eye on this.

It was moved and seconded to accept the report of the Committee on Legislative Affairs. The motion carried.

It was moved and seconded that if the appropriation for the Kansas City Medical School fails or passes, a proper news release should be issued by the MSMA accordingly. The motion carried.

SAMA PROGRAM

Dr. Matthews presented a run-down on the proposed extern program presented by SAMA and MECO (Medical Education Community Orientation). He stated that this would affect medical students who have been accepted in September, prefreshmen or freshmen. Forty-three hospitals in Illinois last year participated in this program jointly sponsored by SAMA, the Illinois State Medical Association, the Illinois Hospital Association and the Illinois Academy of General Practice. The externs are paid approximately $75.00 per week by the hospital for a ten-week period or $750 per student. The program consists of individually-oriented educational programs in community hospitals, stressing exposure to clinical situations and hospital operation. In each program, students will rotate through a series of clinical and nonclinical areas of the hospital under the direct supervision of physicians and staff. To be eligible for participation in the project, a student must (1) have completed one year of medical school by June or have been accepted for entrance into a medical school by September and (2) be a member of the SAMA.

Dr. Matthews stated that SAMA has approached the MSMA with the same idea for Missouri and it was his thought that this should be turned over to the Commission on Continuing Education and Health Manpower for discussion and consideration prior to taking any action on the program. He pointed out the extern program carries no credit and possibly would conflict with the preceptor program which has been in operation for some time at the University of Missouri Medical School.

Following further discussion, the Chairman referred the SAMA matter to the Commission on Continuing Education and Health Manpower for study and recommendation.

REPORT ON CONTINUING EDUCATION AND HEALTH MANPOWER

Dr. J. F. McDonnell, Chairman of the MSMA Commission on Continuing Education and Health Manpower, gave the following report of a meeting of the Commission held in Jefferson City on May 17, 1970.

Dr. McDonnell stated that the 112th Annual Session was reviewed and criticized from various standpoints. In view of several scientific sessions having poor attendance, it was agreed that for the 113th Annual Session (1) concurrent scientific sessions on Friday and Saturday will be changed from three to two; (2) the opening session on Friday morning at 9:00 will be an outstanding solo program with no other concurrent sessions; (3) the general luncheon on Friday will not be scheduled in deference to the luncheons sponsored by specialty organizations and other groups meeting with the MSMA; and (4) the general luncheon on Saturday at 12:30 PM will be scheduled and, for the 113th Annual Session, the MMPAC will be invited to provide the speaker or speakers to discuss "Concepts of Political Action." It was further agreed, as in the past, that sponsors for scientific sessions will include (a) voluntary health organizations, (b) organized specialty groups and (c) MSMA Committees.

Dr. McDonnell indicated that it was generally agreed by members of the Commission that the 113th Annual Session should include a program covering various existing and proposed health care systems and that a program should be offered also for the information of the physician and the public on the subject of "Medicare and Medicaid—Why do they cost so much and what is the proportion of this cost actually paid to the physician and other health services providers."

He stated that in accordance with the new Bylaws, the Commission Chairman appointed the following Ad Hoc Committee to serve for one year to plan and develop the 113th Annual Session: Drs. Edward D. Kinsella, Chairman; W. Wayne Boydston; Paul R. Young; George R. Ladyman; B. J. Bass; and W. Thomas Morgan, Jr. (A copy of the proposed scientific sessions program was distributed to the Council.)

The Chairman also appointed the following Ad Hoc Committee on Continuing Education to serve for one year: Drs. Paul R. Young, Chairman, and A. Sherwood Baker, Missouri University Medical School. It was agreed that further consideration should be given for additional appointees to this Ad Hoc Committee, including representatives from St. Louis University School of Medicine and Washington University School of Medicine.

This new Ad Hoc Committee was informed that possible referrals by the MSMA Council may include a resolution approved by the House of Delegates regarding a study of the "Oregon Plan," which proposes attendance at specified continuing education programs as a requirement for continued membership in the state medical association.

Dr. McDonnell stated that reference was made in the meeting to a recent action of the MSMA House of Delegates regarding consideration for an interim scientific session. In the discussion which followed, mention was made of the possibility of such programs being scheduled and conducted at the regional level. This concluded Dr. McDonnell's report.

Dr. Fisher expressed his concern regarding development of a program to obtain more physicians for the state of Missouri. Dr. McDonnell indicated that he was sure this was part of his commission's duties and would keep this in mind. He then indicated that he would welcome suggestions from the Council regarding specific topics or speakers for the scientific sessions of the 113th Annual Session.

It was moved and seconded to accept the report of the Commission on Continuing Education and Health Manpower. The motion carried.

Dr. Cunn called for any additional business. There being none, the Council adjourned at 12:00 noon.

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(Continued from page 589)

lieve, equally, that much of the apprehension, anxiety and suspicion now prevalent—for better or worse—with respect to those responsible for health care would disappear if professional standards review organizations were established and functioned effectively. It seems to me that the American people are entitled to know that American medicine shares their concern—and more importantly—proposes to do something substantial about it through means of professional standards review organizations. . . .

"I believe that physicians, properly organized and with a proper mandate, are capable of conducting an ongoing effective review program which would eliminate much of the present criticism of the profession and help enhance their stature as honorable men in an honorable vocation willing to undertake necessary and broad responsibility for overseeing professional functions. If medicine accepts this role and fulfills its responsibility, then the Government would not need to devote its energies and resources to this area of concern. Make no mistake: the direction of the House-passed social security bill is toward more—not less—review of the need for and quality of health care. I believe my amendment would provide the necessary means by which organized medicine could assume responsibility for that review."

Bennett said that, under his amendment, review groups would have responsibility for reviewing "the totality of care provided patients —including all institutional care." That responsibility he said, would be lodged "whenever possible and wherever feasible," at the local community level. He said:

"Local emphasis is necessary because the practice of medicine may vary, within reasonable limits, from area to area, and local review assures greater familiarity with the physicians involved and ready access to necessary data. Priority should be given to arrangements with local medical societies—of suitable size—which are willing and capable of undertaking comprehensive professional standards review.

"Under the amendment, the Secretary (of Health, Education and Welfare) could use state or local health departments or employ other suitable means of undertaking professional standards review only where the medical societies were unwilling or unable to do the necessary work or where their efforts were only pro forma or token. Let me emphasize as strongly as possible that the thrust of this proposal is to have physicians, as a group, evaluate physicians and the services they provide and order as individuals."

Bennett said that the review committees should determine that only medically necessary services are provided by physicians, hospitals, nursing homes and pharmacies, and that these services meet proper professional standards.

Disciplinary measures, he said, would be in proportion to the offense and could include (1) monetary penalties, (2) suspension from federal programs, (3) exclusion from federal programs, (4) civil or criminal prosecution and (5) steps leading to the suspension or revocation of professional licensure.

Dr. Hill directed his testimony before the finance committee mainly to medical care of the blacks and other poor people, particularly in ghettoes. He took issue with the committee staff report which, he said, "by implication attacked the very physicians working closest to the poor and treating them." He said restrictions upon physicians' fees, as advocated in the report, would make more acute the already critical shortage of physicians in ghettoes.

"To those who read the entire report, there were a number of very complimentary things said about all physicians," Dr. Hill said. "But the primary message, the one seized upon by the press and broadcast across the country, appeared to be that any doctor earning a substantial amount of money from Medicare-Medicaid was, somehow, cheating both the government and his patients.

"It was bitterly ironic. To work 60 and more hours a week in the ghetto, and to be fairly paid, was suddenly prima facie evidence of wrong-doing.

"The report was also interpreted so that the blame for the rising cost of Medicare-Medicaid was directed at the physician—and, particularly, those caring for the poor.

"Therefore, we of the National Medical Association take strong exception. The implications and accusations of that report were grossly unfair. It is difficult enough to get physicians to practice among the poor. . . . If these men, professionals committed to providing care, are to be subjected to irresponsible accusations for the size and success of their ghetto practices, it will very soon be impossible to find a doctor among the American poor."

Eighth District Meeting

(Continued from page 585)

on her chart. The film will illustrate hazards of the pill, which, hopefully, will prevent many malpractice suits. Also, in the field of audio-visual *physician* education, a television set attachment can be employed, enabling a doctor to see digest presentations on bone marrow, surgical techniques, etc.

Dr. Wilbur emphasized the importance of decreasing the number of hospital patients. He suggested educating the people, improving environment and "treating patients while they are vertical, before they become horizontal in a hospital bed." He cited the great need for more general practitioners, general surgeons and internists. More medical schools must be built, more loans granted and the length of medical school should be shortened, according to Dr. Wilbur.

In closing his remarks, Dr. Wilbur observed that the AMA has been the leader in health care for many years and, with the help of active physicians, it can continue to lead.

Dr. Joseph L. Fisher noted that MSMA membership means that medical views of physicians will be expressed on both state and national levels. He mentioned some of the services of the MSMA, such as physician's placement bureau, insurance programs, a foundation program and the Auxiliary. He said that in 1967, the MSMA worked closely with the Division of Health in the Medicaid program. In discussing the Political Action Committee, Dr. Fisher said that doctors need to talk with legislators and candidates in their home towns. He discussed the Key Man Committee, which assigns a doctor to each state representative. Dr. Fisher also stated that the MSMA was instrumental in revising two bills which would have changed the statute of limitations in malpractice cases from the present two years from the act in all cases to two years from discovery. He said that with the help of friends in both the House and the Senate, MSMA was able to have the bills revised into the form in which the statute of limitations would run only two years from the act in all cases other than those involving foreign substance left in the body: foreign substance cases would run two years from discovery, but in no case longer than ten years from the act.

The Senate bill in the above-mentioned form died on the House calendar the final night of the session. Dr. Fisher said that even though no action was taken on the malpractice statute of limitations, chances are that the matter will be introduced again and the MSMA must be prepared with a bill which will be in the public interest and, at the same time, will not be detrimental to the health care of Missourians.

He also noted that "peer review" is presently being studied by the MSMA and the Council has recently accepted a "peer review" proposal submitted by an MSMA ad hoc committee chaired by Dr. Rae Froelich of Lebanon.

Mrs. William M. (Pat) Walker, President of the Woman's Auxiliary to the MSMA, received a standing ovation as she took the rostrum. She pointed to the fact that the Woman's Auxiliary was organized on May 21, 1922 and that doctors' wives have faithfully supported it with their time, money and energy. Because of the ever-increasing number of problems, Mrs. Walker expressed the opinion that each physician's wife must make it a point to be informed, active and involved. "She should effectively tell the story of medicine within her community and assist her husband in expressing his opinion," she added.

Stating that "there is so much to do in the Auxiliary," she challenged each wife to become involved with her group.

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Tenth District Meeting

(Continued from page 586)

He added, "We outlined problems concerning hospitals and medical care in the area and how they can be improved. Since it was primarily a meeting of communications, there weren't any specific problems discussed."

Dr. Fisher also discussed medical care problems which he attributed in part to over-utilization of free medical services and the current high degree of specialization by many physicians.

The meeting ended with a banquet at which U.S. Senator Symington was the featured speaker. Speaking about the quality of care provided for Vietnam veterans, he said that "inadequate funding for medical care in our Veterans Administration Hospitals has led to conditions which are intolerable in a country that takes pride in the quality of its medicine."

The Senator stated that "Providing proper care for our young men wounded in Vietnam is just as much a part of the cost of war as the money we spend on the weapons and equipment for combat." He pointed out that our VA Hospitals are not adequately funded to care for the increased number of disabled veterans who require intensive care and rehabilitation.

Cardiovascular Symposium to Be Held in St. Louis

The Third Annual Cardiovascular Symposium will be held on Oct. 2-3, 1970 in St. Louis. Sponsored by the Great Plains Heart Associations in cooperation with the St. Louis Heart Association and the American Heart Association Council on Clinical Cardiology, the event is designed to bring practicing physicians up-to-date on the latest developments in prevention, bedside diagnosis and treatment of heart disease.

The program of lectures and discussions has been approved by the American Academy of General Practice for 12 elective credit hours. Practicing physicians in the Great Plains Region, which includes Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota are invited to attend the program.

A program and registration form may be secured upon request from the St. Louis Heart Association, 4643 Lindell Blvd., St. Louis, Mo.

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POSITION WITH MEDICAL STAFF—Student Health Service, University of Missouri at Columbia, Mo. To complete staff of 11. Starting salary $17,800 for 11 months, with substantial increases, excellent fringe benefits plus no-cost retirement plan. If interested, contact William R. Galeota, M.D., Director, Student Health Service, Columbia, Mo. 65201. An equal opportunity employer.

GENERALIST—For a group in St. Louis County. Privileges at four hospitals with no OB. Free time available. Excellent salary leading to early partnership. All the cultural advantages of St. Louis and medical educational facilities of two medical schools available. Contact Box 358, Missouri State Medical Association, 515 E. High, Jefferson City, Mo. 65101.

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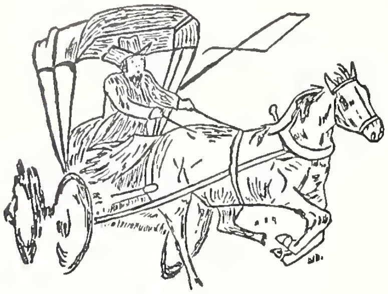
LEO H. POLLOCK, M.D.

Missouri Medicine in Review



FORTY YEARS AGO

"'Death has many doors to let life out,' but these men have closed some of the doors. Theirs was a heroism that would not flinch in the face of death itself. Such a hero was Dr. Jesse W. Lazear of yellow fever fame and his coworker, Dr. James Carroll. Dr. Lazear gave his life and Dr. Carroll all but gave his in making possible the eradication of this terrible pandemic disease which decimated the city of Philadelphia in a single season. Gen. Leonard Wood said, 'Control of yellow fever saves more lives every year than were lost in the Cuban War.'

"Dr. Thomas B. McClintock lost his life studying Rocky Mountain fever and so did Dr. Howard Taylor Ricketts, who proved by personal experimentation that Rocky Mountain fever is conveyed to man from an infected animal by the bite of a tick. Dr. Daniel A. Carrion studied verrugas and died of it. Both Dr. Yersin and Dr. Hermann Muller gave their lives in the study of bubonic plague. Drs. Raikes and Wray, government medical officers, died of infection from the same disease contracted while performing postmortems.

"Dr. Tito Carbone and Dr. Allen McFayden were martyrs to Malta fever. Dr. J. Everett Dutton died of relapsing fever while investigating that disease. Dr. John Herbert Wills died of glanders. Dr. Zampagni died of infection contracted while studying spotted fever.

There are no less than 150 martyrs who suffered indescribable agony and finally forfeited life itself as a result of working with X-ray and radium. One, Dr. McDowell Botts was my personal friend."

TWENTY-FIVE YEARS AGO

During 1944, the services of the Washington University cyclotron, previously devoted exclusively to war activities, have been made available for cancer research.

Penicillin has become an important agent in the treatment of gas gangrene, one of the bacterial horrors of war, according to a study reported in the July 14 issue of *The Journal of the American Medical Association*. Lt. Col. Francis H. Langley and Capt. Lawrence B. Winkelstein, Medical Corps, Army of the United States, are authors of a paper in which they report on cases treated in an army evacuation hospital.

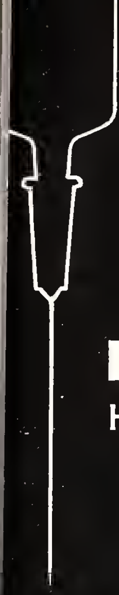
The "Doctor Prefix Bill," House Bill #206, has been passed by both Houses and was approved by the Governor on June 22. Interpretation of the bill states that each practitioner of a healing art must indicate his field of practice by suitable abbreviation, showing the degree he holds on letterheads, cards, statements and in any other way his name is used in connection with his professional work.

TEN YEARS AGO

Representatives of the press and the Cole County Medical Society "broke bread together" and discussed mutual considerations at a meeting at the Jefferson City Country Club on May 24. A frank discussion was held concerning publicity on medical matters and how doctors and news reporters can develop good mutual understanding.

The physician population of the United States and its possessions increased approximately 4,769 in 1959, according to the Council on Medical Education and Hospitals of the American Medical Association. There were 8,269 new physicians licensed, and 3,500 physicians died during the year. Of the 8,269 new physicians, 1,626 were trained in foreign countries. The number of physicians registered in 1959 was 16,068, the largest number in 56 years.

In a talk before the Round Table Club of Fayette, Dr. W. A. Bloom outlined the steps that were taken toward establishment of a hospital for Howard County and announced receipt of a gift of $100,000 from a former resident of the county.



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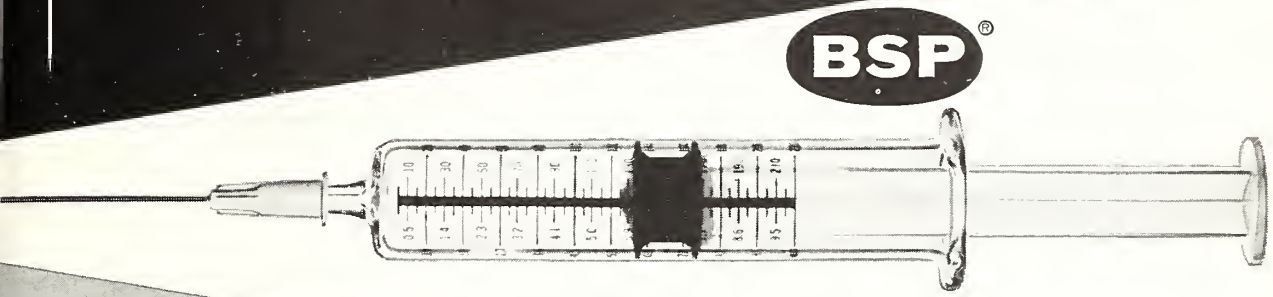

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Missouri Medicine

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Statement Issued on Medicaid Limitations

(*Editor's Note:* The following statement concerning the limitations in the Missouri Medicaid (Title 19) Program was released to the news media of the state on July 31, 1970. The statement quoted MSMA President Joseph L. Fisher, M.D., St. Joseph. On August 17 the state of Missouri was informed that the reduction in Medicaid funds violated a federal law which says a state cannot spend any less than it did the previous year on Medicaid and still be eligible for federal matching funds. The Department of Health, Education and Welfare said that Missouri will be given every opportunity to comply with the federal law before the state is dropped from the medical program for those on the welfare rolls.)

In November, 1967 the Missouri Medicaid program was initiated. Aided by matching Federal funds this State program supplied hospital care, out-patient care, drugs and other services to welfare recipients. Services were provided on the basis of need and payment was made to hospitals and physicians on a reasonable charge for service basis. In a memorandum of July 6, 1970, announcing cuts in the program, Mr. Proctor Carter, Director of the Division of Welfare, made the following statement:

"Audits of the Department of Health, Education and Welfare and the General Accounting Office have indicated that the program has operated efficiently and effectively. This is due in no small measure to the fact that physicians in our State and other providers of medical care under the Medicaid program have cooperated fully to make the program as beneficial as possible to needy Missourians."

Now, because the citizens of the State have elected not to provide adequate funds for this program, Missouri faces a serious crisis. Missouri law directs that the Department of Welfare operate within its appropriation. Accordingly, Mr. Carter took the only course open to him and drastically cut the medical services that Medicaid will provide. This is simply a matter of arithmetic. When the Missouri appropriation fell, Federal funds were also reduced, severely limiting available Medicaid money.

What then of the people on the Welfare rolls? The arbitrary reduction of funds available has not altered the needs of these individuals.

The new regulations allow only two weeks of hospital care. Will the hospitals refuse to admit sick patients who will be in for more than two weeks or discharge them before they are well because of a regulation?

Only one out-patient visit a day will be allowed. Will a patient be refused treatment because his condition deteriorates before the next day?

X-rays and laboratory work will be done for emergencies only. Frequently these procedures are done to determine if an emergency exists. Will Welfare patients be denied these services because the physician cannot certify in advance that they are needed for emergency reasons? Will some lay Government employee override a physician's opinion as to what constitutes an emergency?

Payment for non-urgent or elective procedures will not be allowed. Will these people be subject to medical neglect until their condition becomes urgent and they must be treated as emergencies? The medical providers' answer to these questions is a collective "NO."

The physicians of Missouri hope that hospital boards and administrators as well as other providers of medical care will continue to meet the needs of these people as they have traditionally done. It should be remembered, however, that by limiting funds at the State level recipients of Welfare are being forced back on the charity of their local communities – especially the physicians of Missouri who, before this Government program, took care of the poor for "free"!

It is the opinion of the Missouri Medical Association that all goods and services purchased by the State should be paid for at the usual and customary cost. We do not expect artisans, architects, accountants, druggists, nurses, dentists, laborers, attorneys or others to accept employment by the State at reduced rates. We should not expect community hospitals or private physicians to subsidize a State program by working for below cost payments. Hospitals, nursing homes, dentists, druggists and physicians have fixed costs that must be met.

The Missouri State Medical Association believes that the budget director, with the approval of the Governor, should permit the Division of Welfare to carry on the Medicaid program at the same level as in the last fiscal year during the first three quarters of the current fiscal year. Such action would give the next General

(continued on back of page)

Missouri Delegation At Communications Institute In Chicago

"We are setting out to convince the American people that we are the ones - the only ones - who have the experience to lead in the health care field," AMA President-elect Wesley W. Hall, M.D., told those in attendance at the American Medical Association Communications Institute in Chicago on August 7.

Dr. Hall said that the AMA will need communications, leadership and membership to make its programs possible.

More than 250 representatives of state and county medical societies attended the Institute.

Mr. Gary Schnedler, Executive Secretary of the Greene County Medical Society at Springfield, was a program participant and discussed ways in which his society has maintained good news media relations.

Other Missourians who attended the Communications Institute on August 6 and 7 included Joseph L. Fisher, M.D., President of the Missouri State Medical Association; Oral B. Crawford, M.D., President-elect of the Greene County Medical Society; Sidney Rubin, M.D., President-elect of the Jackson County Medical Society; Henry V. Guhleman, Jr., M.D., Jefferson City, Chairman of the MSMA Commission on Public Affairs; Mr. Allen Smith, Executive Secretary of the Jackson County Medical Society; Mr. Hollister S. Smith, Executive Secretary of the St. Louis Medical Society; Mr. William Lindsley, Assistant Executive Secretary of the St. Louis Medical Society; Mr. Raymond McIntyre, MSMA Executive Secretary and Mr. Bob Carroll, MSMA Executive Assistant.

MEDICAID STATEMENT (Continued)

Assembly an opportunity to re-evaluate the needs of the program and to make further emergency provisions for its continuance during the current fiscal year.

The Missouri State Medical Association believes that those services rendered by the Medicaid program should be clearly defined from those given by local communities.

Under the present method of administration these two functions will be inseparably scrambled to the welfare of no one involved in these services.

Lest the physicians be accused of being concerned only about fees, we hasten to point out the fact that only 18 per cent of all Medicaid monies are allocated for physicians fees. The proposed 12 per cent cut in these fees is insignificant to both the physicians and the program, but the democratic principles involved here are the very roots of the psychological and moral fibre of this great country. Let's keep the record straight.

HEW OKs Money For Medical Schools

The Department of Health, Education and Welfare on August 18 approved two grants totaling $18.6 million for medical school facilities at the University of Missouri-Kansas City and St. Louis University.

The University of Missouri-Kansas City is to receive $8,856,643 for the construction of a new medical school which is expected to have 100 first year students when it is opened.

St. Louis University's medical school is to receive $9,758,821 for expanding and remodeling existing facilities. Expansion of these facilities would permit an increase of 38 students (to 160) annually in first year enrollments.

The grants for the two Missouri schools are 16 per cent of the total $118 million being sought by HEW for medical schools across the nation.

Councilor District Meetings Set

Three Councilor District meetings have been scheduled for September and October.

Councilor E. A. Stricker, M.D., has announced that the 9th District Meeting will be held in Rolla on September 17th.

Councilor John N. Martin, M.D., has announced that the 1st District Meeting will be held in St. Joseph on October 21.

Councilor Robert A. Mayer, M.D., has announced that the 4th District Meeting will be held in St. Charles on October 27.

Physicians in each of the districts will be receiving more information on their meetings by mail.

RICHARD L. WIELER, J.D. *and*
LESTER E. WOLCOTT, M.D., ***Columbia***

Medical-Legal Aspects of Disability Evaluation

Part I-Personal Injury Litigation

THE SUBJECT OF DISABILITY EVALUATION assumes a new and different meaning for the physician when his patient becomes involved in a legal proceeding. Once the patient's injury becomes the subject of a claim for damages or compensation, the physician is confronted with the demands of interested third parties—attorneys, claims adjustors, courts or administrative agencies—for information concerning the effects of the injury. Since disability is essentially a legal, rather than a medical, concept, the physician must have some understanding of the legal theories and practices behind compensation for injuries in order to perform this role which the patient and the public demand of him.

PERSONAL INJURY LITIGATION

The personal injury suit is a tort action. It is based on fault and, in order to win his case, the plaintiff must show duty on the defendant's part, a breach of this duty, damages as a result of the breach (causation) and proof of the nature and extent of these damages. The plaintiff must establish all four of these elements to the jury's satisfaction. Generally, in determining damages, the jury may take into consideration the age, health, habits, pursuits and the sex of the injured party. Allowance may be made for permanent injuries, pain and suffering, impairment of health and for loss or diminution of the plaintiff's earning capacity. Evidence that the plaintiff has no education or fitness for a pursuit different from that in which he was engaged at the time of his injury is admissible. An injury which incapacitates him from following the only calling which he is able to pursue entitles him to more compensation than would the same injury if he were qualified to take up some other equally profitable pursuit notwithstanding the injury.

Missouri courts have defined "permanent injury" as physical or mental impairment or disability which will last throughout life or injury reasonably certain to be followed by permanent impairment of earning capacity or one producing permanent irremediable pain. To warrant a recovery for a permanent injury, the future effect of the injury must be shown with reasonable certainty. The measure of damages in such cases (permanent injuries or impairment of health) is compensation for the disabling effect of the injury, past and prospective, including damages that for loss of time and decreased earning capacity. The destruction or impairment of any physical function is a proper element of damages, as well as deprivation of mental abilities resulting from physical injury.

The physician has a vital role to play in this process. He is the only person qualified to evaluate existing pathology in terms of its cause, its relative deviation from the norm and its effect on the body as a functional or anatomical unit. The initial goal for the physician in evaluating a personal injury case should be a complete and thorough study of the particular patient and his problem which can be used by third parties for monetary evaluation of the particular disability. Since the greatest impediment to the amicable adjustment of a personal injury case is a lack of

Since disability is basically a legal, rather than a medical concept, the goal of this informative paper is to aid the physician in understanding the legal theories and practices behind compensation for injuries in order to perform the role which the patient and the public demand of him in a legal proceeding. This detailed discussion of legal aspects as they are specifically related to the situation in Missouri should prove of value to the physician whose patient becomes involved in litigation. Mr. Wieler is an Assistant Attorney General, State of Missouri, and Dr. Wolcott is Professor and Chairman, Department of Physical Medicine and Rehabilitation, University of Missouri School of Medicine.

understanding of the monetary value of a claim for damages, it must be based on a sound evaluation of the extent of the disability as well as the legal problems involved. Unfortunately, most legal people think that a physician can quickly and accurately estimate disability because of his training and experience in dealing with disabling illnesses and injuries. They often are appalled by the wide variance in estimates which are oftentimes given by conscientious and reputable doctors.[1]

Both professions need to be reminded that disability is a legal concept. It arises out of a feeling in the law that, if sufficient facts concerning any issue are presented, the truth for all times can be established. When a lawyer asks a physician for an estimate of disability, he is really asking for an estimate of the future effects of a present injury in terms of permanent physiological change, possible aggravation and degeneration and impairment of earning capacity. To the lawyer, these are the facts which must be established in order to prove the extent of disability and claim the largest possible award. These, plus the question of liability, are the elements which form the basis for a settlement with the insurance company. Failing this, these are the elements which are submitted to the adversary proceeding of trial in which the facts will be established once and for all by the jury.

From a legal standpoint, it is easy to see why there are such wide variances in medical estimates of disability. Although the evaluation of permanent impairment and future physiological changes are uniquely within the sphere of medical knowledge, medicine is not yet an exact science and, as every doctor knows, anything is possible in the future. When confronted with a request from a lawyer, most physicians react conservatively in estimating permanent impairment and possible future consequences. This arises out of years of training in which the physician is encouraged to prognosticate conservatively since future examinations and predictions can always be made. The lawyer should make it clear that *the injured person is entitled to only one day in court and any recovery allowed must suffice for all time.*[2] In giving his estimate, the physician should delay as long as is reasonable in order to allow a maximum healing period, and his opinion should be based on "reasonable medical certainty" with a thorough knowledge of the patient's background and history.

The physician should keep in mind at all times that he is only being asked for his *opinion*. Because of his special knowledge, his opinion will be given great weight if it is presented logically and is well grounded in fact. Far too many medical experts have been disillusioned with the legal process because of a failure to understand their role. Rightly or wrongly, our society through its tort law has said that the ultimate determination belongs to the jury. The medical witness is there only to aid them in their decision. In many ways, he is a teacher. His job is to give an impartial presentation of his views based on his admittedly superior medical knowledge, permit counsel for both sides to expand and clarify these views and prevent them from being distorted in the course of questioning. This can be done only by one who has a clear understanding of the medical problems involved. If the physician's conclusions are so based and are derived with "reasonable medical certainty," he has done his duty to his patient and society, regardless of whether or not his opinion is accepted by an insurance company or a jury.

It is because of this unique role of medicine in personal injury litigation that the American Medical Association's Guides for the Evaluation of Permanent Impairment are ineffective. It is the feeling of the authors that the establishment of uniform percentages for certain losses of function among the various parts of the body is of little value in evaluating the effects of any given injury. Certain functions simply cannot be divorced from the individual as a whole. Even if the percentages might be of some value, they are too difficult to explain and defend to a jury. The medical expert is better off demonstrating the impairment visually rather than in terms of percentages.

The other factor which leads to wide variance in disability estimates is the problem of reduced earning capacity. The American Medical Association labels this "permanent disability" and indicates that it is an administrative problem rather than medical and, since it is affected by nonmedical factors such as age, sex, education, economics and social environment, it is not a medical responsibility. This, however, is not totally correct. While it is true that the ultimate determination does not lie in medical hands, the physician's opinion and his general knowledge of the physical requirements for any given job carry great weight with the adjudicators. This opinion regarding the plaintiff's remaining capabilities is crucial in any attempt to settle a case. This is not to say his opinion is correct. Nobody will ever be able to predict the social and economic effects of physical impairment with complete accuracy. There are simply too many variables involved. For instance, the physician evaluating disability may be influenced by his attitude toward a given injury and and its possible effects. To a man with a college education and a white collar job, the loss of a leg would not seem to be nearly as disabling as it would to a day laborer. In addition, the attitude of the disabled individual toward his handicap is crucial. Psychological factors may often be determinative.

The only nearly objective measure of a person's disability is the actual extent of his activity. Since this is a worthless standard for personal injury litigation, the amount of the jury verdict becomes the only objective criteria for determining disability. "What could I get from a jury" is the thought of every lawyer when he attempts to reach a settlement without a trial. An accurate estimate of the probable verdict size is the key to an amicable adjustment. A clear understanding of this would help eliminate the two biggest roadblocks to an early settlement of personal injury claims, they are: (1) lack of timely and objective evaluation of the case by both parties and (2) failure of both plaintiff and defendant to discuss settlement at an early date.

Unfortunately, many attorneys and insurance companies use the "guesstimate" approach to evaluation, relying mainly upon judgments obtained in the past. In addition, the insurance company usually considers the following seven major factors in arriving at a settlement figure: (1) the extent of their coverage, (2) the possible liability of the insured, (3) the jurisdiction and venue in which the suit must be brought, (4) the extent of injury, (5) the amount of special damages (claimed actual pecuniary loss), (6) the quality of the plaintiff and his witnesses and (7) the quality of the defendant and his witnesses. A study by Jury Verdict Research, Inc. on 443 back and neck injuries (the most common form of injury claim) shows that only one out of six of the final offers and demands came with 25% of the verdict amount. Demands ranged from one fourth of verdict size to 11 times the verdict and offers ranged from 1/14 of the verdict size to six times the verdict. Demands totaled $4,441,398, offers totaled $1,921,216 and the actual verdicts totaled $3,439,058. The gap between the offers and the verdicts indicates that the insurance companies have been discounting far too much out of fears concerning potential overtreatment and exaggeration of wage losses. The gap between demands and verdicts indicates that plaintiff's lawyers have not been including an estimate of the chances of recovery in their evaluations. A claim in which plaintiff does not have a 100% chance of winning must be discounted accordingly.

Space limitations preclude publication of "Medical-Legal Aspects of Disability Evaluation" in a single issue. Therefore, this article will appear in three segments. Parts II and III will be published in subsequent issues.

The Bibliography also has been divided, but reference number will be continuous from installment to installment.

The following outline will give the reader an overall view of this article:

Part I

Personal Injury Litigation

Part II

Workmen's Compensation

Part III

Social Security Administration, Disability Insurance, Vocational Rehabilitation Agency and Summary

In order to narrow these gaps, Jury Verdict Research, Inc. has developed tables of *Verdict Expectancies*[3] for various injuries under various conditions. When used to predict the outcome of 744 back and neck injuries, the average deviation between the predictions and the actual verdicts was only 7% with the largest deviation being a −12% in the area of general and unspecified back strains, an exceedingly difficult area. This in itself is remarkable accuracy and it will continue to get better as the research continues.

Perhaps a simple illustration can best show how these tables work and, at the same time, demonstrate their usefulness to all concerned in the personal injury area. Assume that the plaintiff, a student, was struck by the defendant's car while crossing the street at an uncontrolled corner in Columbia. The plaintiff claims he was in the crosswalk. There were no witnesses for either side. The plaintiff suffered a broken ankle, a fractured jaw and bruises and lacerations. He was forced to drop out of school for a semester and was unable to work during the summer. In order to use the Injury Valuation tables, one must determine the appropriate principal injury and the amount of provable special damages, i.e., all medical expenses and loss of earnings incurred as well as those reasonably expected in the future, excluding any property damage. Great care must be taken in arriving at this special damages figure. The fears of the insurance companies in this area have already been noted and the lawyer should not include items which cannot be backed by common sense or "reasonable medical certainty." Once this figure has been determined, one simply turns to the appropriate injury and selects the Verdict Expectancy value for the group within which the special figure falls. Secondary injuries are not considered because the jury usually ignores them in reaching a verdict and, also, they are compensated because their presence leads to higher specials. If two injuries are really equal, the Verdict Expectancy for both injuries should be derived and then combined, taking all of one and one third of the other. In this illustration, assume that the medical expenses were $1,200, the loss of summer wages was $1,200 and a $600 loss resulted from being forced to drop a semester of college. The Verdict Expectancy for this injury (the principal injury here is the broken ankle) with specials of $3,000 is $12,000.

However, as was stated above, in arriving at a figure for settlement purposes, an estimate of the chances of recovery must be included as well as an estimate of the amount of recovery. Referring to the Jury Verdict Research, Inc. Verdict Expectancies Service, one finds that plaintiffs have not been very successful in winning street crossing accidents. The recovery rate when struck in the crosswalk at an uncontrolled intersection is only 50%. This means that the plaintiff here, should he sue, has only a 50-50 chance of recovering anything. Accordingly, the injury expectancy value should be multiplied by the recovery percentage: $12,000 × 50% = $6,000.

The final step is to look at the Area Key in order to determine what the injury is worth in this jurisdiction. Verdicts in Boone County average 17% below national average. After adjusting for area differences ($6,000 × 17% = $1,020, $6,000 − $1,020 = $4,980) a sound evaluation figure has been reached which can be used as a basis for effective negotiation. If more serious injuries are involved or there are special facts or circumstances, further evaluation can be carried out through these tables to provide the best possible solution.

This is not to say that the above system is unerringly accurate. In any given case, there will be variables which could render these figures meaningless. Expectancy tables are at best educated predictions. However, statistics have already proved their usefulness in the area of life expectancies and the life insurance companies are not likely to stop using actuarial tables in the near future. The use of the Verdict Expectancy Tables will enable one to analyze a personal injury case in terms of the only objective standard conceivable, the jury verdict.

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JOHN S. SPRATT, JR., M.D., ***Columbia****

Carl A. Moyer, M.D., A Humanistic Devotee of the Scientific Method

Special Article

DR. CARL A. MOYER died on May 29, 1970 at the age of 61. He was buried in his native Baraga, Mich. Dr. Moyer was the first member of the Cancer Research Center Scientific Advisory Committee. He also was a staunch academic friend of the Ellis Fischel State Cancer Hospital during his tenure as Bixby Professor of Surgery at the Washington University School of Medicine (1951-1965), assisting the Cancer Commission in recruiting staff and residents for the Ellis Fischel State Cancer Hospital and encouraging the Cancer Hospital staff to pursue a course of excellence in service, research and teaching.

Aside from this personal contribution to the EFSCH-CRC, Dr. Moyer was a most remarkable man. He was an inspiration to his associates and students and an enigma to those who did not appreciate the depth of his intellectual and humanistic insight and motivation.

Dr. Moyer was a naturalist, archer, angler, physiologist, neurologist, surgeon, scientist, scholar, linguist, student, professor, dean, teacher, father, husband, friend, humanist, author and dialectician. In his unassuming way, he excelled in each of these roles. Yet, as a janitor who knew him in the halls of a great hospital where he worked told me, he always had time "to talk to the little people." As the janitor went on to say, "he used to work long hours at night when no one else was around." In the janitor's words, he was "a great man."

Unlike many professors, he declined to exert political action to obtain preferred academic positions for his own trainees. He believed that such academic nepotism and paternalism tended to dilute the quality of scholarship that should exist in medicine. He believed that a properly educated man imbued with the philosophy and spirit of the scientific method should earn his own status through the merit of his own achievements.

His own personal achievements merited his status. He made lasting contributions to our knowledge of the control of human respiration, the physiology of the lungs, the water and salt balance of the human body and to our understanding of the pathophysiology of human burns. The firemen honored him for his teachings on burns and for his studies into the flammability of different types of clothing. He synthesized a lifetime of study into the design of a system for effectively treating human burns. To appreciate the significance of this contribution, one need follow only one child covered with painful, disfiguring, often fatal burns.

In literature, he wrote many articles and several books. One, *Fluid Balance*, was a classic in diagnostic clinical observation. Another, *The Principles and Practices of Surgery*, is still the major textbook for contemporary surgery. It integrates many fields of knowledge to bear on the problems of surgical patients. His text is the first with a chapter on mathematics requisite to improve the patient-oriented decisions of surgeons.

As a teacher, he was unsurpassed. He enticed his students into the paths of truth by inspiring them to use their own native powers of observation to inquire, to test, to question and to solve according to the stringent rules of the scientific method.

He spent his final years practicing medicine among the people at his boyhood home in the woodlands of the Northern Peninsula of Michigan. Even in this relatively remote place removed from the prestige of academic halls, he continued to teach by his personal example.

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* Dr. Spratt is Chief Surgeon at Ellis Fischel State Cancer Hospital and Director of the Cancer Research Center.

medical melange

Notes of interest from Here . . . . and There

Dr. William C. Banton, II has been appointed St. Louis Health Commissioner. Dr. Banton, who has been director of the Tuberculosis Control Section of the Health Division in St. Louis since 1964, succeeds **Dr. J. Earl Smith,** who retired as Commissioner in March, 1969.

Mr. Frank Sebree, president of the Board of Directors, Kansas City General Hospital and Medical Center, has announced that the appointment of **Dr. Edward J. Twin** to the position of executive director of the Medical Center will become effective on September 1. Dr. Twin has been director of Education at the Baptist Memorial Hospital in Kansas City. The position of executive director at General Hospital has been open since April, 1969 when **Dr. Richardson K. Noback** assumed full time responsibility for planning and designing the new University of Missouri-Kansas City School of Medicine and new General Hospital. For an interim period, **Dr. John Buesseler** served as acting director until he assumed his position as Vice-President and Dean of the New Texas Tech University Medical School.

Dr. Robert W. Clothier, a pediatrician, has joined the medical-dental staff of the Independence Sanitarium and Hospital. He will join the pediatric team of **Drs. James T. Van Biber** and **Richard G. Pugh.** Dr. Clothier received his M.D. degree from the University of Missouri School of Medicine in 1965. He served a year of internship at Harbor General Hospital, Torrance, Calif. and took his residency in pediatrics at the University of California Hospital, Los Angeles. He served two years with the U. S. Air Force as a Captain.

Two physicians have joined **Dr. E. L. Sandidge** in the practice of medicine and surgery in New Madrid. They are **Dr. Pat Downey** and **Dr. David Jones.** Both physicians received their M.D. degrees at the University of Tennessee Medical Unit at Memphis in 1969. Dr. Downey served his internship at the City of Memphis hospitals. Dr. Jones did extern work at St. Joseph Hospital in Memphis while attending the University and served his internship in Pima County Hospital in Tucson. Dr. Sandidge opened his office in New Madrid in January.

Dr. Henry E. Oppenheimer, associate professor of clinical medicine, St. Louis University School of Medicine, participated in the Annual American Diabetes Association meeting in June in St. Louis. He was chairman of a scientific session on "Insulin Secretion and Release" and of a workshop on "Recruiting Volunteers for a Voluntary Health Organization."

WASHINGTON

A Democratic and a Republican member of the House Ways and Means Committee joined to introduce The American Medical Association's Medicredit plan for federally subsidized national insurance.

The cosponsors of the legislation (H.R. 14567) were Reps. Richard Fulton (D., Tenn.) and Joel T. Broyhill (R., Va.). Both are members of the House Ways and Means Committee which has jurisdiction over such legislation. Soon after introduction of the Fulton-Broyhill measure, Rep. Omar Burleson (D., Tex.), also a member of the Ways and Means Committee, and Rep. John Jarman (D., Okla.), chairman of the House Commerce Subcommittee on Health, introduced an identical bill. Other members of the house from both major political parties indicated they also would become cosponsors.

Fulton, who 18 months ago introduced legislation based on the Medicredit principles for financing private health insurance for individuals, told the House that the new bill "represents. . . a vast improvement over its predecessor by reason of the fact that it encompasses a built-in mechanism for cost control." He referred to mandatory peer review.

Speaking for himself and the measure's coauthor, Rep. Joel T. Broyhill (R., Va.), Fulton said the time for national health insurance has come.

"And whether we're talking about the Rockefeller approach, the AFL-CIO approach, the Kennedy approach or the approach taken by the Committee of 100, all of them advocate sweeping changes in our health care system," Fulton said.

"An across-the-board national health insurance plan, operated regardless of need, will carry a price tag of sobering size. And no such plan I have yet seen includes—at least to my satisfaction—a mechanism which promises effective cost control at the taxpayer's money.

"This brings us to an essential element of Medicredit—its provision of peer review. This bill calls for a constant and unremitting policing mechanism."

The other two parts of the Medicredit legislation would provide for the federal government financing or assisting in the financing of medical and hospital care for individuals and their dependents through participation in the cost of insurance policies of their choice—100% premium payment for the low-income groups, and graduated participation in the payment of premiums for other persons, based on their federal income tax liability.

Congress is not expected to take up this year proposals for national health insurance. But reaction to the AMA peer review plan has been highly encouraging, and prospects appeared good that Congress would approve such a plan this year for Medicare and Medicaid. Sen. Wallace F. Bennett (R., Utah), a senate finance committee member, directed the committee's staff to work with AMA staff representatives in drafting such legislation as an amendment to a bill revising Medicare and Medicaid.

In a speech on the Senate floor, Bennett said there is deep concern over the high costs of Medicare and Medicaid. He complimented the AMA on advancing peer review as a means of curbing these costs. He said:

"I believe the American people are justifiably concerned over the tremendous costs of health care. Much of that concern, it seems to me, is a product of a very real feeling that we are not getting what we are paying for. I believe, equally, that much of the apprehension, anxiety and suspicion now prevalent—for better or worse—with respect to those responsible for health care would disappear in professional standards review organizations were established and functioned effectively. It seems to me that the American people are entitled to know that American Medicine shares their concern—and more importantly—proposes to do something substantial about it through means of professional standards review organizations. . . .

"I believe that physicians, properly organized and with a proper mandate, are capable of conducting an ongoing effective review program which would eliminate much of the present criticism of the profession and help enhance their stature as honorable men in an honorable vocation willing to undertake necessary and broad responsibility for overseeing professional functions. If medicine accepts this role and fulfills its responsibility, then the Government would not need to devote its energies and resources to this area of concern. Make no mistake; the direction of House-passed Social Security bill is toward more—not less—review of the need for and quality of health care. I believe my amendment would provide the necessary means by which organized medicine could assume responsibility for that review."

Bennett said that, under his amendment, review groups would have responsibility for reviewing "the totality of care provided patients—including all institutional care." That responsibility he said, would be lodged, "wherever possible and wherever feasible," at the local community level. He said:

"Local emphasis is necessary because the practice of medicine may vary, within reasonable limits, from area to area, and local review assures greater familiarity with the physicians involved and ready access to necessary data. Priority should be given to arrangements with local medical societies—of suitable size—which are willing and capable of undertaking comprehensive professional standards review. . . .

"Under the amendment, the Secretary (of Health, Education and Welfare) could use state or local health departments or employ other suitable means of undertaking professional standards review only where the medical societies were unwilling or unable to do the necessary work or where their efforts were only pro forma or token. Let me emphasize as strongly as possible that the thrust of this proposal is to have physicians, as a group, evaluate physicians and the services they provide and order as individuals."

Bennett said that the review committees should determine that only medically necessary services are provided by physicians, hospitals, nursing homes and pharmacies, and that these services meet proper professional standards.

Disciplinary measures, he said, would be in proportion to the offense and could include (1) monetary penalties, (2) suspension from federal programs, (3) exclusion from federal programs, (4) civil or criminal prosecution and (5) steps leading to the suspension or revocation of professional licensure.

Bill O'Malley

"Oh, it always takes the Doctor a while to relax after he comes home from the hospital."

Concerning the peer review part of his bill—H.R. 18567, "Health Insurance Assistance Act of 1970"—Fulton said:

"The appropriate medical societies would be charged with establishing a peer review mechanism that would, among other things, review individual charges and services, wherever performed; review hospital and skilled nursing home admissions; review the length of stays in hospitals and skilled nursing homes; and review the need for professional services provided in the institution.

"The process of ongoing review can have nothing but a salutary effect on the providers of services, thereby cutting down on the occasional or unintentional abuses that would otherwise occur.

"Patterns of abuse would be detected, and the abusers either suspended from or excluded from the program. Exclusion could follow action by the Secretary of Health, Education and Welfare upon the recommendation of the peer review committee.

"In the case of fraud, or other clear intentional misconduct, the peer review committee would be expected to bring charges before the appropriate licensing body.

"And in the event that a peer review committee was *not* established by the medical society within a reasonable time, or if established was not functioning, the Secretary of HEW, in consultation with the medical society, would be empowered to appoint a peer review committee that would function."

The Fulton-Broyhill bill would provide that an individual having a tax liability of $300 or less in a base year be entitled to a certificate acceptable by carriers for health care insurance for himself and his dependents. Insurance purchased with such a full-pay certificate would require no beneficiary participation in health care charges. Federal contribution to insurance purchased by individuals under this part of the program would be scaled in favor of low-income taxpayers—from 98% if the taxpayer's base year income tax is between $301 and $325, to 10% when his tax liability exceeds $1,300. Basic benefits in a 12-month policy period would include 60 days of inpatient hospital care. To encourage utilization of less expensive facilities, two days in an extended care facility would count as one day of the 60 days allowed. Other basic benefits would include emergency and outpatient services, and all medical services provided by a doctor of medicine or osteopathy.

A supplemental coverage could provide, in addition, one or more of the following: prescription drugs not otherwise covered, additional days of inpatient and extended care services, blood in excess of three pints, personal health services when furnished on written direction of a physician, diagnostic and therapeutic services and catastrophic coverage of all hospital and medical costs, up to $25,000, after the first $300 of incurred expenses borne by the beneficiary.

Medical Ethics Probe Set

An investigation into the problems of medical ethics in the 1970s will be conducted during the Third National Congress on Medical Ethics in Chicago on September 19-20.

Sponsored by the Judicial Council of the American Medical Association, the biennial conference will be held at the Ambassador West Hotel and is open to physicians and to students of ethics.

The investigation will be opened by Paul Ramsey, Ph.D., head of the Department of Religion at Princeton University, who will discuss "Medicine, Ethics and the Future." Dr. Ramsey is a well known author on the subject of ethics.

Maynard Shapiro, M.D., Chicago, past-president of the American Academy of General Practice, will speak on a profession's ethical obligation to continue its educational endeavors for the benefit of patients.

A New Yorker, Irving Ladimer, S.J.D., who is on the faculty of the Mount Sinai Medical School, will close the morning session with a discussion of "Ethics, Law and Medicine."

Wesley W. Hall, M.D., Reno, Nev., AMA's newly elected president-elect, will be the luncheon speaker at noon Saturday. His subject will be "Ethics and Professionalism."

The afternoon program will open with a presentation by Joseph Nesbitt of Miami, former assistant attorney general of the State of Florida.

Sunday morning's concluding session will open with a discussion of the physician who is not a serious offender against ethical standards but is not a credit to the profession. Donald N. Sweeny, Jr., M.D., of Detroit will be the speaker.

A conference highlight will be a mock hearing before a simulated county medical society ethics committee. Acting as committee members will be Vincent Sarley, M.D., Chicago; B. G. Mitchell, M.D., Memphis, Tenn.; and John A. Naber, M.D., Southgate, Ky.

The Congress will close with a summation "Medicine's Ethical Responsibilities." The summation will be presented by Russell B. Roth, M.D., Erie, Pa., speaker of AMA's House of Delegates.

For further information write to the Department of Medical Ethics, American Medical Association, 535 North Dearborn, Chicago, Ill. 60610.

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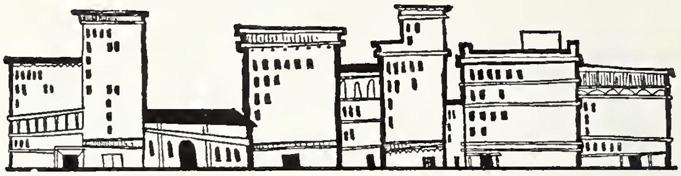
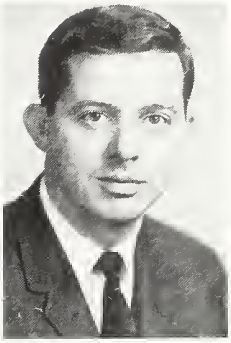
From the Medical Schools



ST LOUIS UNIVERSITY

Two new section heads have been named at the St. Louis University School of Medicine. Dr. Simon Horenstein has assumed his post as professor of neurology and chief of the Section of Neurology, while Dr. Edwin E. Westura has assumed duties as director of the Section of Cardiology in the Department of Internal Medicine.

Dr. Horenstein



Dr. Westura

Dr. Horenstein comes to the School of Medicine from Case Western Reserve University School of Medicine, where he was associate professor of neurology and chief of Neurological Service at Highland View Hospital in Cleveland. He also was assistant neurologist at the University Hospitals in Cleveland and consultant to U. S. Veterans Administration Hospital in Cleveland and U. S. Veterans Hospital in Brecksville, Ohio. From 1968 to 1969, he was chirman of the Stroke Committee, Northeast Ohio Regional Medical Program.

Since his recent arrival, Dr. Horenstein has been invited to be a principal investigator in the Bi-State Regional Medical Program Stroke Unit, which is headquartered at the St. Louis University Medical Center. He also has been named director of the residency program in neurology.

He succeeds the late Dr. Louis L. Tureen, who died on June 19, 1968. Since that time, Dr. Robert M. Woolsey has served as acting chief of the Section of Neurology.

Dr. Westura joined the St. Louis University School of Medicine as associate professor of internal medicine and director, Stress Physiology Laboratory in the Section of Cardiology in 1968.

He came to the School of Medicine from the U. S. Public Health Services where he was chief of the Applied Physiology Laboratory of the Heart Disease Control Program from 1966 to 1968.

Dr. Morton W. Weber, professor and chairman of the Department of Microbiology, will spend a sabbatical year at Oxford University beginning September 1 as a visiting professor. He will be associated in the laboratory of Professor Joel Mandelstam, head of the microbiology unit in the Department of Biochemistry.

Dr. Alvin H. Gold, assistant professor of pharmacology, has been invited to present a paper before the Eighth International Congress of Biochemistry, which will meet in Montreux, Switzerland on September 3-9. Dr. Gold's trip is being supported by a travel grant given to him by the American Society of Biological Chemists. He will deliver a paper entitled "The Effect of Diabetes and Insulin on Liver Glycogen Synthetase Activation."

Dr. Edward T. Auer, who is Samuel W. Fordyce professor of psychiatry and chairman, Department of Neurology and Psychiatry, has been elected chairman of the Bi-State Regional Medical Program Administrative Liaison Programs.

He succeeds Dr. James L. O'Leary, professor and chairman of the Department of Neurology at Washington University School of Medicine.

The Committee's primary responsibility is fiscal representation, guidance and professional advice from the Schools of Medicine which form the nucleus of Bi-State Regional Medical Programs.

The Committee rotates offices each year among the Bi-State Regional Medical Program.

The administrative liaison committee includes Dr. George E. Thoma, assistant vice-president, St. Louis University Medical Center; Dr. V. L. Willman, professor and chairman, Department of Surgery, St. Louis University School of Medicine; and Dr. William Stoneman, III, Bi-State Regional Medical Program Coordinator, who is an ex-officio member. Dr. Stoneman is assistant professor of surgery at the St. Louis University School of Medicine.

WASHINGTON UNIVERSITY

Louis V. Avioli, M.D., chief of the Division of Endocrinology and Metabolism at the Jewish Hospital of St. Louis and professor of medicine at Washington University School of Medicine, has been appointed chairman of the Arthritis and Metabolic Diseases Program-Project Committee, Division of Research Grants, National Institutes of Health, for a one-year term which began on July 1, 1970.

The Arthritis and Metabolic Diseases Program-Project Committee is a review group composed of qualified scientists drawn from research and academic institutions. It is responsible for examining applications for grants-in-aid for support of programs of multidisciplinary research related to the programs of the National Institute of Arthritis and Metabolic Diseases and for surveying the status of research in its field to determine areas in which research activities should be initiated, expanded or curtailed.

Dr. Avioli also will act as principal scientific adviser to the Committee's executive secretary, a scientist-administrator on the staff of the Division of Research Grants.

Joseph A. Kopta, M.D., has been appointed assistant professor of orthopedic surgery.

Dr. Kopta received the B.S. degree in 1958 and the M.D. degree in 1962 from University of Oklahoma. He earned a master's degree in medical education last spring from the University of Illinois, where he held a fellowship at the Office of Research in Medical Education. He is one of only two orthopedic surgeons with special training in medical education in this country. His primary interests are in instituting education innovations to increase the relevancy and efficiency of medical education.

Two faculty members have been appointed as Alumni Teaching Scholars.

John M. Kissane, M.D., professor of pathology, and John D. Vavra, M.D., associate professor of medicine, were named to the positions following their selection as "Teachers of the Year" by the graduating Class of 1970.

Accompanying the appointments is a $25,000 Medical Teaching Fund grant which will be awarded to the department with which each teacher is affiliated. The Fund is financed by alumni contributions.

The Nutrition Foundation, Inc. has awarded Mark A. Stewart, M.D., professor of psychiatry and associate professor of pediatrics, a $4,000 grant to study levels of ascorbic acid and its derivatives in the brain. Through his research, Dr. Stewart has found that ascorbic acid may perform an important role in the growth and development of the mammalian brain. His project is entitled "Metabolism and Function of Ascorbic Acid in the Brain."

A "first" for St. Louis, which will help increase much needed parking at the Washington University Medical Center, has been announced. It is the construction of a garage above railroad tracks which will permit Washington University Medical School and Associated Hospitals to provide spaces for more than 400 additional automobiles.

William H. Danforth, M.D., vice-chancellor for medical affairs at Washington University, said the new parking will be an extension of the 735-car garage at the corner of Euclid and Audubon Avenues. Although structures have been constructed above railroad right-of-way in other metropolitan areas, it is believed that this will be the first time in St. Louis that one will be erected.

The medical center, bounded on the north by the Jewish Hospital of St. Louis and on the south by the Central Institute for the Deaf, includes Barnes and Allied Hospitals, St. Louis Children's Hospital and the Medical School. Presently there are about 3,000 spaces available on parking lots, garages and on-street meters in the area. A recent survey indicated that by 1975 there will be a need for 5,000 spaces.

Contractors anticipate completion by the end of November.

Fight for Sight research awards of $11,000 have been made to two on the Washington University School of Medicine faculty. Ronald M. Burde, M.D., assistant professor of ophthalmology, with a $6,000 grant, will study supression of the rejection of corneal grafts. Morton M. Smith, M.D., associate professor of ophthalmology, with $5,000, continues his study of eye tissue with the scanning electron microscope.

UNIVERSITY OF MISSOURI

Dr. Gwilym S. Lodwick, professor and chairman of the Department of Radiology and professor of biomedical engineering at the School of Medicine, has been selected as the "most distinguished alumnus" of the Radiology Department at the University of Iowa. He is one of the Iowa medical graduates who will be honored during the college's Centennial Week on September 13-19.

A native of Mystic, Ia., Dr. Lodwick is a 1943 graduate of Iowa's College of Medicine. He joined the faculty of the University of Missouri in 1956, the year the University Medical Center

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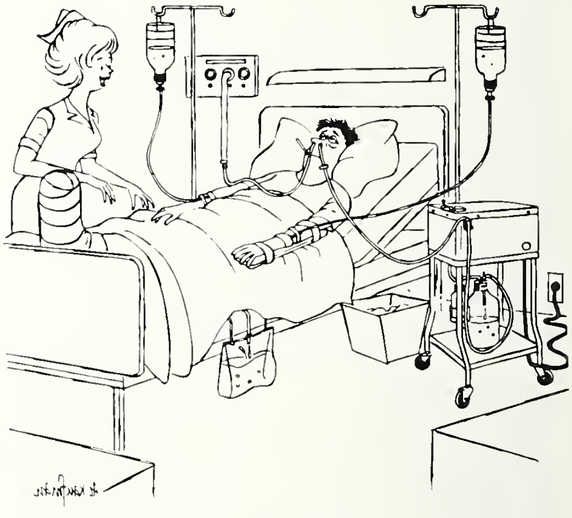
opened and medical education was extended to four years on the Columbia campus.

He is internationally known for his expertise in developing the use of computers in Medicine, a program he pioneered at the University of Missouri. He is chairman of a world-wide conference on "Computers in Radiology: 1970" which will be held in Columbia on September 23-26.

One of the first studies among educators in the nursing profession to obtain information on the social and occupational roles nursing students have assumed after graduation was recently completed by Dr. Ingeborg Mauksch, associate professor in the School of Nursing at the University of Missouri-Columbia. Such data is necessary for future decisions regarding nursing education and the needs of the profession.

A detailed questionnaire sent to all graduates of the School of Nursing from 1951, when the present curriculum began, to January of last year was returned by 437 or 78% of the nurses. The data from these questionnaires were then analyzed by computer.

It was found that more than half (58%) of the currently employed graduates work in the state. Furthermore, since migration within the United States by members of health occupations is now an important issue, it was of special interest to determine whether a state university educates nurses who then leave the state to practice elsewhere. Dr. Mauksch found the 91% of the graduates considered Missouri their home state at enrollment and 53% still live in the state.



"Comfy?"

Missouri University Offers Sabbatical Program for the Practicing Physician

A Sabbatical Program for the Practicing Physician has been announced by the University of Missouri-Columbia School of Medicine.

Mr. Gail Bank, Executive Director of Continuing Education, said that the purpose of the program is to provide the physician with the opportunity to return to the teaching institution, to take a sabbatical from the routine of practice and to gain the information, exposures and specific opportunities in medicine that he feels will be most useful to him in the context of his own continuing education program.

As a part of the Sabbatical Program, the practicing physician will preselect the length of his program in the Department of Medicine. He will live in or near the Medical Center complex.

The practicing physician will be given nearly complete independence in selecting those exposures, interpersonal relationships, conferences and any other activities he feels will be useful to him.

The individualized program can be developed either with an approach to general internal medicine or an approach to one of the sub-specialty areas, such as cardiology, dermatology, endocrinology, gastroenterology, hematology and oncology, immunology and rheumatology, nephrology, neurology, infectious diseases and pulmonary diseases.

ELIGIBILITY

The Sabbatical Program is open to all practicing physicians who have an interest in furthering their exposure to those facets of internal medicine that relate to their practices.

Physicians who function principally as family-care doctors and general practicitioners, physicians where practice is predominantly that of internal medicine or board-certified internists may wish to participate.

OUTLINE

The essence of the program is an emphasis on informally-structured sessions with a maximum availability of opportunities for visitations, observations, exposures and interpersonal communications with faculty, house staff and other Medical Center personnel.

By prearrangement, after consultation with the Department of Medicine to plan his individual program, the physician may elect to spend one to eight weeks (or more) in the program. A shorter or longer period in the program would require more intensive planning but would be possible.

CREDITS

Arrangements will be made on the basis of the individualized program for physicians who wish credit from the American Academy of General Practice. Physicians also may claim credit toward the AMA Physician of Merit Awards.

COSTS

There are no fees for the continuing medical education Sabbatical Program. However, all housing arrangements and personal accommodations are the full responsibility of the physician. Information about hotels and motels will be provided upon request.

Under certain circumstances, arrangements could be made for an in-hospital "on call" sleeping situation, depending upon the physician's desire to become involved at that level of department activities.

For further information, physicians are invited to write to Continuing Medical Education, M-175 Medical Center, University of Missouri, Columbia, Mo. 65201.

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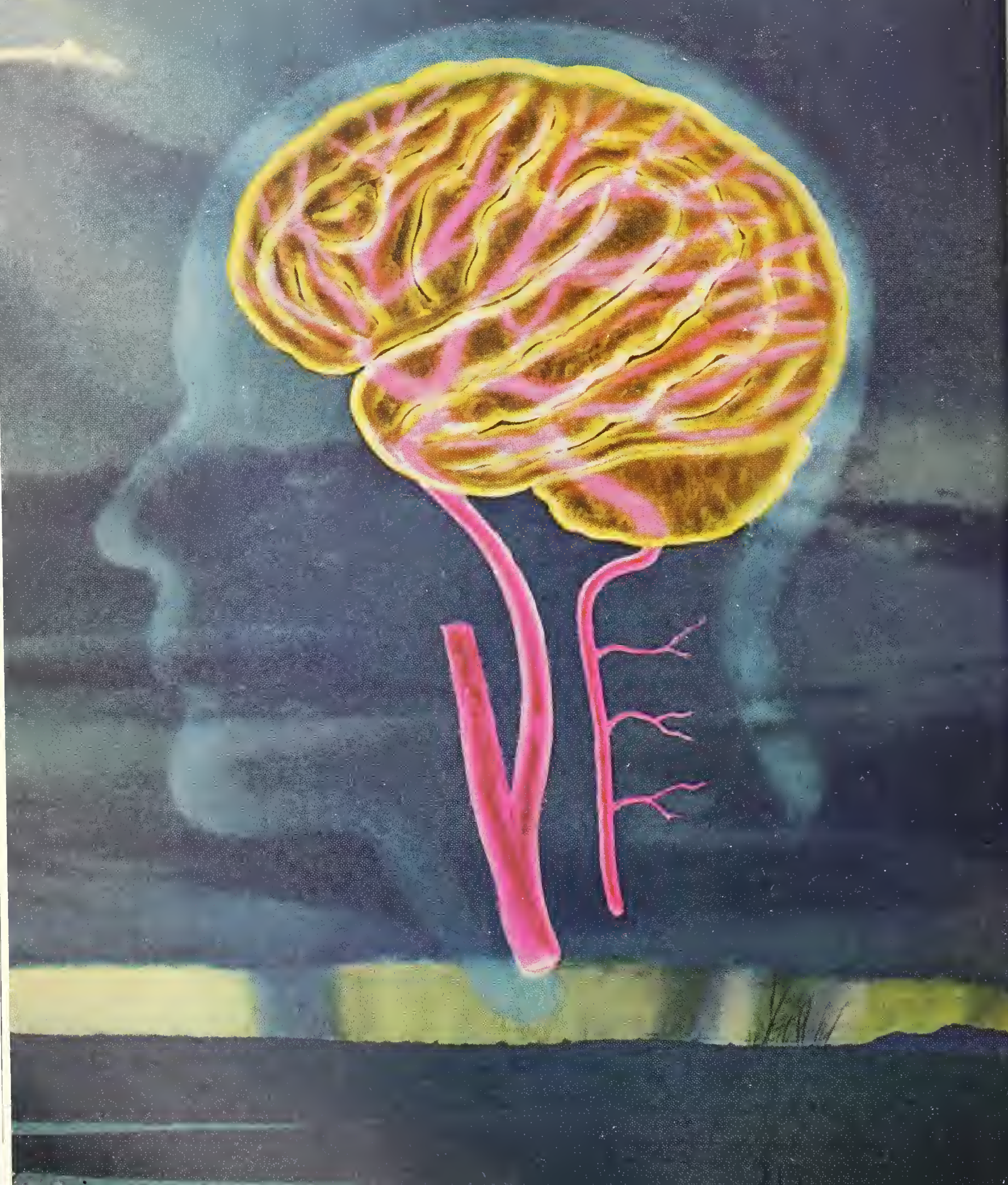

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BURL M. DILLARD, M.D., HAROLD G. NORMAN, JR., M.D., *and*
GIL B. MANALO, M.D., *St. Louis*

Subfascial Vein Ligation in the Treatment of Venostasis

Venostasis is highly disabling. The results of operations to correct venostasis can be improved by recognition of the pathologic anatomy and physiology.

The two significant venous systems of the leg are (1) the superficial, which is the greater and lesser saphenous system, and (2) the deep venous system. These are connected by the perforating veins that carry blood from the superficial into the deep system through the investing fascia. The valves in all these veins permit flow from the superficial into the deep system and up the leg to the right heart. Homans[1, 2] mentions that if incompetence of any valves of these systems occurs, venostasis then develops. Askar[3] further stresses that phlebitis will often result in the postphlebitic syndrome of severe chronic venous insufficiency. All three systems may become impaired. Although occlusion is common in acute phlebitis, the vein usually recanalizes; however, the delicate valves are permanently damaged as pointed out by Dale[4] and de Tekats.[5]

Superficial varicose veins rarely produce severe chronic venostasis. Moderately dilated superficial veins produce dull aching pains, fatigue and minimal dermatitis. This is the most common venous disorder and Lofgren[6] shows this to be well treated by vein stripping and high ligation. Severe dematitis and ulceration rarely devolop without a history of deep phlebitis possibly because of local trauma or destruction of the valves by superficial phlebitis extending into the perforating veins. Pollack,[7] in 1949, and later Carter[8] and McPheeters[9] did venous pressure studies and found it unusual to see involvement of the perforating system without involvement of the superficial system, also. Each contraction of leg muscles forces blood out of the portion of the deep veins through the incompetent perforating vein valves into the superficial veins. This results in venostasis, venous hypertension and, ultimately, varying degrees of advanced chronic edema, fibrosis, dermatitis and ulceration. Anderson[10, 11] emphasizes that operation

In reporting the experience at St. Louis City Hospital with cases of severe venostasis encountered during a five-year period, the authors describe the anatomy and pathophysiology of advanced venous diseases and the successful results they attained with subfascial ligations of the incompetent perforating veins. Surgical techniques varied, but the surgeons adhered to the basic principles. The authors are formerly from the Department of Surgery. Washington University School of Medicine and St. Louis City Hospital.

for such patients requires ligation or stripping of these incompetent communicating veins frequently unrecognized and not connected with the main channels, long or short saphenous veins. Most of these patients are middle-aged persons who have had varicose veins for years. A few years previously, the greater and lesser saphenous veins were stripped or ligated. The initial result was satisfactory, but leg edema and dermatitis persisted, proceeding later to ulceration and being unresponsive to conservative treatment (Fig. 1). Most of these patients required subfascial ligation of the incompetent communicating veins.

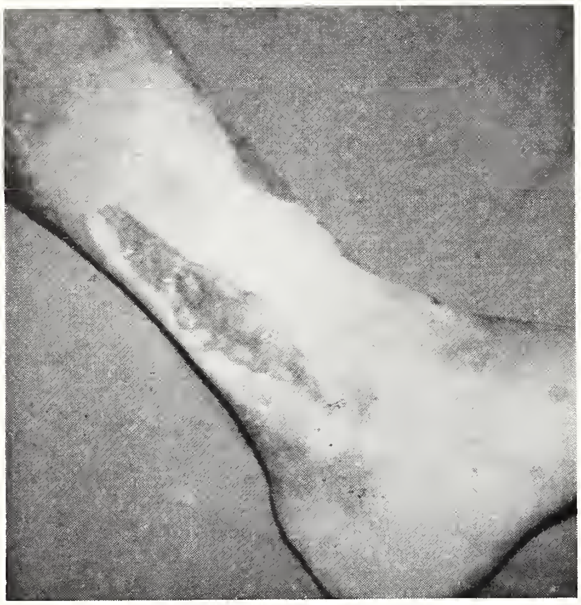

Fig. 1 Longstanding venostasis ulcer of lower leg.

This paper describes the anatomy and the pathophysiology of advanced venous disease and our results with subfascial ligations of the incompetent perforating veins. Linton in 1948[12] and in 1953[13] described a technique of subfascial ligation of perforators and excision of deep fascia in the posterior compartment of the leg. In 1953, Cockett[14] in London described the operation used in our series, namely, making a longitudinal incision along the medial aspect of the leg and subfascially ligating the involved perforating veins. Sarjeant[15] in 1964 and Sherman[16] reported a more extensive operation and gave an excellent description of the venous anatomy of the legs.

This paper reports the experience at St. Louis City Hospital with cases of severe venostasis encountered during a five-year period. Surgical techniques varied with the individual surgeon, but the basic principles were adhered to. Most of the cases were performed over a two-year period by one of the authors. All of the patients have been followed for more than one year.

Symptoms and Indications for Operation

In any large city hospital, numerous patients will be seen with chronic disabling venostasis and its complications. Leg ulcers due to venous insufficiency are very frequent in a combination of diseases as pointed out by Anderson.[10] Selection of appropriate patients for operation comes with experience and thorough understanding of the underlying disease processes. In selecting patients for subfascial vein ligations, we follow certain criteria: (1) significant ulceration, (2) persistent edema with advanced dermatitis, (3) persistent disease in spite of previous therapy, (4) activity of the individual and (5) adequacy of arterial circulation.

Significant ulceration

Patients with significant venous ulceration that did not improve with conservative treatment in the clinic with no surgical contraindications were admitted. Diabetes, if well controlled, has not been a contraindication. The ulcer was first treated by bedrest, elevation and local treatment and skin grafting when needed. Homans' was the first to point out the success or failure of a skin graft for ulceration due to venous insufficiency. This depends primarily on the thoroughness of the excision of scar tissue and proposed wide excision of skin, subcutaneous tissue and fascia with application of graft to the underlying healthy tissues. Julian[17] noted that recurrence of ulceration was most frequent at a site involving the skin immediately bordering the graft edges and felt that in these cases insufficient excision had been done, noting that in reoperation, taking a larger area had occasionally resulted in success. The above good results with this form of therapy also is reported by Blalock.[18] Moyer[19] noted no particular tendency to recurrence with progression of time by excision and skin graft, but his work was not well documented. Further operation was delayed at least two weeks after the graft.

Persistent edema with advanced dermatitis

Patients with these findings had more advanced venous disease than the usual superficial varicose veins. All patients with these symptoms who failed with appropriate leg elevation, elastic wraps and stockings were evaluated for this operation. In this group, the indications for operation varied with the operating surgeon. Many felt that the woody hard edema and chronic fibrosis resulted in such poor results that this radical operation was a contraindication. Most surgeons accepted the fact that these were the patients who would most need preventive treatment of their venous disease.

Recurrent stasis after previous operations

Most of these patients had received previous operations, such as skin grafts for significant ulcerations, superficial strippings, ligations, injections and numerous combinations. Recurrence after the above therapy suggested that a different operation was necessary.[10, 11, 20]

Activity of the individual

Operation was not advised unless the patients were ambulatory and self-sufficient. Bedfast patients usually responded to conservative management. The surgeon's aim was to restore an active individual to normal life.

Adequacy of arterial circulation

Lack of pedal pulse was a contraindication to operation. The large flaps raised by this operation require adequate arterial flow for healing. This criteria eliminated some patients with combined arterial and venous disease.

Methods of Diagnosis

Determination of which veins are incompetent is necessary before appropriate operation can be planned. A history of the background of medical problems and condition of the patient is essential. Duration of venous disease is a known fact in relation to phlebitis and pregnancy and must be carefully evaluated. Two specific tests are utilized in all patients, as follows:

Phlebograms. Phlebography is used to evaluate patency of the deep system, the size and location of perforating veins (Fig. 2). A 20 gauge scalp vein needle is inserted into a vein on the dorsum of one or both feet. A tight tourniquet is placed about the ankle to force the contrast material into the deep venous system. The patient stands on the foot board of an x-ray table elevated to a position to 70 to 80 degrees. Ninety cubic centimeters of 50% conray are injected in one and one-half to two minutes into each leg studied. Films are taken of the leg and thigh in the anteroposterior projections.

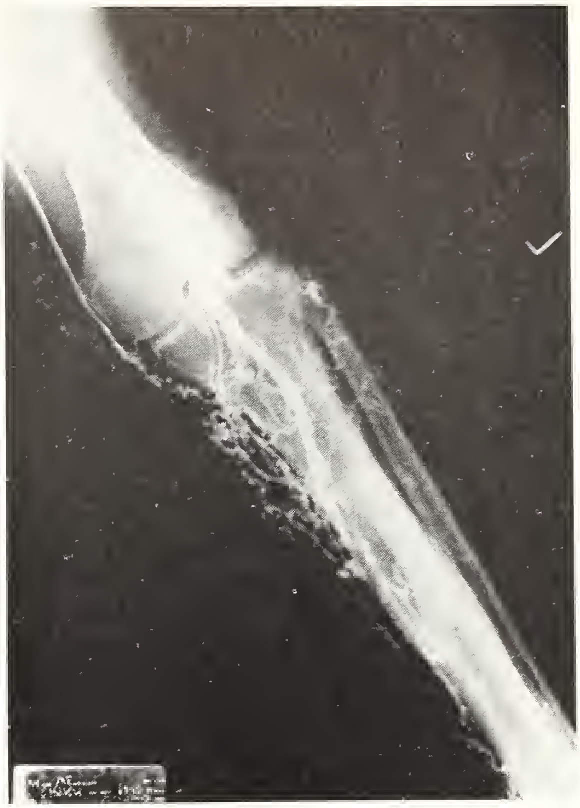

Fig. 2 Phlebogram illustrating deep perforating incompetent subfascial veins.

Phlebograms showing incompetent subfascial perforating veins with a patent deep venous system are a prerequisite for subfascial vein ligations. Postoperative phlebograms are made six to eight weeks later to demonstrate whether any perforating veins persist.

Brodie-Trendelenburg's Procedure. When properly performed, this test is almost infallible. The patient lies on the table and the examiner elevates the leg 45°. The superficial veins are emptied. A tourniquet is applied on the upper third of the thigh, tight enough to obliterate the superficial veins, but not deep viens. The examiner carefully observes and palpates the varicose veins. At the end of 20 seconds, the tourniquet is released. The test is singly positive when the veins remain empty with the tourniquet in place and then fill rapidly from above when the tourniquet is released. This means that the greater saphenous alone is incompetent at that particular time. The test is doubly positive when the veins below the tourniquet become moderately filled prior to release of the tourniquet and more rapidly filled when the tourniquet is released. The filling prior to release means that the veins are being filled either by incompetent perforators or by the incompetent lesser saphenous.

If this test is doubly positive with the tourniquet around the upper third of the thigh, further tests will be necessary to determine the position of one or more incompetent veins below this level. The tourniquet is now applied above the patella. If the test is doubly positive immediately above the patella, it means that it must be repeated applying the tourniquet below the knee. If a doubly positive test is now obtained, it means that incompetent perforators are present in the lower leg. A decrease in the rate of filling indicates that the short saphenous also is incompetent. A negative Trendelenburg test shows the long saphenous vein filling moderately during the first 15 to 20 seconds and not becoming distended when the tourniquet is released. These methods of diagnosis are utilized so the exact location of the incompetent perforators can be localized.

Surgical Anatomy

A brief review of surgical anatomy is necessary for understanding the perforating veins of the leg. As Sarjeant[15] points out, there are approximately 16 to 18 constant perforating veins that may become incompetent. Eight veins drain into the posterior tibial vein, four into the peroneal vein and four into the gastrocnemius and soleus veins. Other veins pierce the deep fascia from the anterior compartment to connect with anterior tibial vein, but few are significant. The perforators of the posterior tibial vein are present along the medial aspect of the leg. The lowest perforators lie along the oblique line in fusion between the transverse cephalic and the deep investing fascia. These are located about 5 cm to 7 cm intervals. In the middle of these three is located the most frequent incompetent vein in the leg (Fig. 3), and it is the cause for most ulcers involved with the medial malleolar area.

Above the oblique line are three perforators at 5 cm intervals along the medical aspect of the tibia. These perforators pierce the plexus inaccurately about 5 cm above the medial malleolus and pass between the tendon of the posterior tibial muscles and the tibia.

Along the lateral aspect of the leg at the posterior margin of the fibula are veins draining into the peroneal vein. The lowest are present at about 5 cm above the os calcis, and they are located at 5 cm intervals above this. These veins perforate the deep investing fascia and are accompanied by associated small branches of the peroneal artery.

There are four perforators which drain into the gastrocnemius and soleus veins. Two of these are on the medial aspect of the calf and the others are on the lateral aspect lying on the surface of the bellies of the gastrocnemius. These subfascial veins on the posterior aspect of the leg communicate with tributaries of long and short saphenous veins. One perforator is a communication between the short saphenous and the gastrocnemius veins accompanying the sural nerve. The veins, as previously described, are present in almost all cases. In some patients, these appear to be greatly dilated when incompetent. It is interesting to note that when these veins are seen in a subfascial location, they may be relatively small in size or as large as 5 mm to 7 mm in diameter (Fig. 4). They are very small

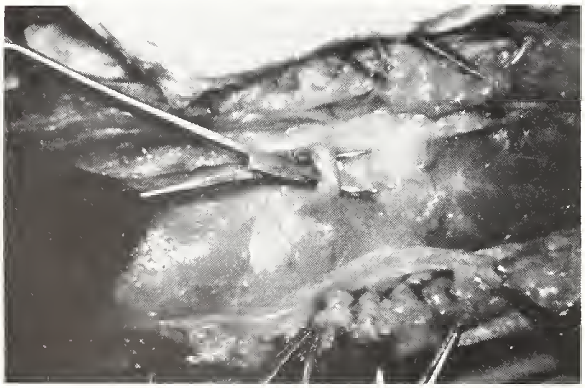

Fig. 3 Perforating posterior tibial vein near the medial malleolus.

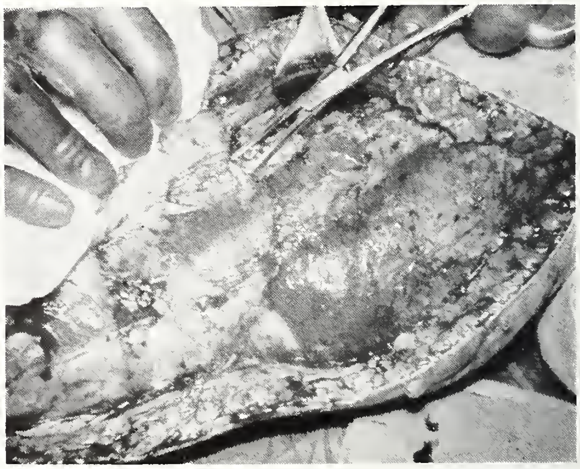

Fig. 4 Large subfascial perforating varicose vein.

in comparison to the caliber of the superficially involved varicose veins. It is because the investing fascia surrounding these veins prevents dilatation subfascially that these veins are smaller in this location. If they are traced out into the subcutaneous tissue, they are noted to be greatly enlarged and form large lakes and pools of the venous systems. When the veins are encountered in a subfascial location, an attempt should be made to identify all previously described veins, since all have a significant function.

OPERATIONS

The method of operation is dependent upon previous procedures performed. If ulceration persists despite conservative therapy with ulcer dressings and elastic stockings on an ambulatory patient, then bedrest, leg elevation and split thickness skin grafts are performed. After healing of the graft, a period of about two weeks is allowed before further operation. The likelihood of wound infection is thus reduced.

If the greater and lesser saphenous system were previously stripped and cannot be identified on phlebogram or on Trendelenburg test, this aspect of the operation is not performed. If the greater or lesser saphenous systems are still in continuity, this represents the first step. Lofgren[6] and Myers[21] point out the technique in venous stripping and, also, the fine points necessary to eliminate incompetent perforators and diminish operative time. The leg is prepared and draped from the toes to the pubis in a routine fashion. A 1 cm longitudinal incision is made over the medical malleolus overlying the greater saphenous vein. The vein stripper is then inserted part way to the knee, and an incision is made in the groin over the fossa ovalis. This skin incision parallels the groin crease for about 4 cm in length and is below the inguinal ligament. The saphenous vein is located in the center of the incision. The main tributaries are isolated. The tributaries that are significant are superficial inferior epigastric, superficial circumflex iliac, superficial external pudenal and anterior medial and lateral femoral cutaneous veins. The saphenous vein is then ligated flush with the common femoral vein, leaving no blind end as a a source for future thrombus. Tributaries of the saphenous vein are ligated and divided. The vein stripper is then passed into the cut end of the saphenous vein and tied in place temporarily. The distal bulb of the stripper is secured to the distal aspect of the saphenous vein at the ankle and the vein is then ligated distally and divided. Stripping is now delayed until later in the procedure.

The foot is flexed at a right angle and an incision marked along the medial malleolus curving around its inferior tip about halfway between the medial malleolus and Achilles tendon. The incision proceeds anteriorly to the junction of the middle and upper leg, then curves slightly posteriorly to the knee, just lateral to the tendon of the semi-tendonous. The incision is then made as outlined down to the fascia. Bleeding will be encountered as several dilated varicosities will be divided by this maneuver. The veins will appear "arterialized." Bleeding vessels are not ligated at this time. The deep fascia is incised in the upper aspect of the incision and distally, much as the peritoneum is opened in an abdominal laparotomy. At the level of the fascial opening of both the middle and lower one third of the leg, we encounter the upper aspect of the lesser flexor retinaculum running obliquely. The incision is carried distally posteriorly along the oblique line alongside the Achilles tendon until the os calcis is located. As this incision continues down the line from the middle one third, lower one third perforators are seen. These should be ligated at this point. At the level of the medial malleolus, the distal perforator is located. This also should be ligated, as it is the most commonly incompetent.

The large anterior flap with its fascia is raised immediately until the lateral aspect of the tibia is reached. Usually three or four deep perforating veins will be located along the upper two thirds of the tibia. If these are incompetent, they are ligated and divided. The lower third of the anterior flap with its deep fascia is lifted off the upper part of the oblique line until the tibia is disclosed. There a large perforator is reached and divided. Distally above the medial malleolus, there is a perforator between the medial malleolus and the upper border of the retinaculum; this is then divided.

The posterior flap containing the subcutaneous tissue and the deep fascia is dissected from the gastrocnemius with blunt dissection. Two perforators are located medially along the gastrocnemius. Perforators along the sural nerve in the lateral gastrocnemius are then identified. The pair of peroneal perforating veins, along the posterior lateral aspect of the fibula, are located and ligated. The dissection continues laterally to the edge of the fibula. The lowest perforator is located about 5 cm to 6 cm above the posterior aspect of the os calcis. The remainder of the veins are found at 5 cm to 6 cm intervals along the lateral aspect of the fibula.

After these perforators, about 16 in number,

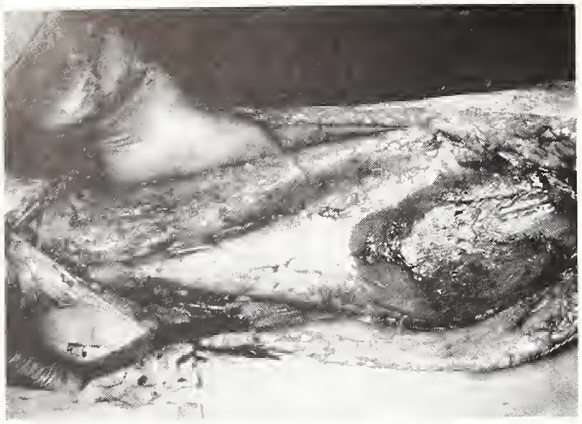

Fig. 5 Illustration of anterior flap raised beyond border of the tibia and posterior flap raised behind the gastrocnemius with the fingertips of hand, as seen posteriorly.

are identified and ligated, it will be noted that eight drain into the posterior tibial vein, four into the peroneal vein and four into the gastrocnemius and soleus veins. Fig. 5 demonstrates the anterior flap raised to beyond the tibia to the fibula, and the posterior flap raised to the fibula with all perforators ligated.

If attention is to be turned to the lesser saphenous system, an incision is made through the deep fascia just below the popliteal fossa. The vein is identified and dissected from the sural nerve. The fascia is incised along the vein and all tributaries identified and ligated at the end of the lesser saphenous. Resection is continued down to just below the lateral malleolus where the vein is ligated, divided and removed. At this point, we shift to a Trendelenburg position and strip the greater saphenous vein. Note that the greater saphenous vein is identified at the ankle and the stripper is inserted and brought out through the groin incision. The vein is then divided and with a constant pulling motion, the greater saphenous vein is removed through the incision in the groin.

The veins orginally clamped at the beginning of the fasciotomy are now inspected. Veins running longitudinal to the wound are dissected out into the fat, ligated and the excess removed. A thrombosed vein along the incision will cause chronic phlebitis and breakdown will occur before complete healing can be obtained. The deep fascia is closed with running catgut. The skin is closed with 3-0 nylon sutures. The wound heals slowly and the nonreactive quality of nylon will permit leaving sutures in place three to four weeks, if necessary. Large compression dressings utilizing ABD pads and elastic Ace bandages are applied.

Postoperatively, the patient is placed on bedrest with feet elevated for at least four to five days. The first dressing is then changed, and if satisfactory healing is observed, ambulation is begun. The patient is maintained on elastic stockings and Ace wraps for at least six weeks postoperatively. Sutures are left in place two to three weeks depending on the healing.

This procedure of subfascial vein ligation and vein stripping is a significant operation. We follow the policy of performing the operation on only one leg at a time. The other significant technical point to be mentioned is the absolute necessity of preventing infection of the anterior and posterior flaps. The gloved hand acts better and safer as a retractor than utilizing a rake or other means of skin retraction. Undue tension on the wound may result in the slough of the flap on the seventh to tenth day. Ulcers are treated by split thickness skin graft with complete healing for at least two weeks before initiating further operative procedure. Careful completion of the operation takes approximately an hour and a half to two hours. Plaster splints were not used in this series.

Results

In this series of 49 patients, subfascial vein ligations were performed in 51 extremities. These were operated by several surgeons following criteria as outlined previously. The ratio of distribution reveals 43 white and six Negro patients. There were 34 women and 15 men included. The age distribution revealed 32 of 49 patients to be in the 40-60 age group. The youngest patient was 32 years old, and the oldest patient was 79 years old. All patients were ambulatory, performing their normal routine work after surgery except for three patients. History of the disease revealed that most patients had suffered for at least five years. Indications as etiological combinations for subfascial vein ligation are listed in Table 1.

TABLE I

COMBINATION OF ETIOLOGICAL INDICATIONS FOR SUBFASCIAL VEIN LIGATION

1. Dermatitis
2. Persistent superficial varicosities
3. Edema
4. Ulceration
5. Previous thrombophlebitis
6. Onset of varicosities related to pregnancy
7. Trauma

Twenty-two of the patients had received prior operative therapy for venostasis, dermatitis and ulceration. In ten cases, previous greater and lesser saphenous vein stripping had been performed, and one patient had been operated on six times previously. Multiple venous ligations and skin grafting had been performed in six cases.

Numerous associated medical diseases were noted in these patients. Obesity, hypertension and diabetes were frequently seen. Interestingly, six patients had associated mental disease ranging from mental deficiency to manic-depressive disorder.

Diagnosis of incompetent perforating veins could be derived by tourniquet test in 17 cases and phlebograms were obtained in 36 cases with a 97% accuracy. One patient developed a large recurrent leg ulcer measuring 4 cm × 6 cm on the right lower medical extremity. Follow-up phlebogram on this patient revealed persistent perforating varicose veins from the posterior tibial vein Fig. 6). These were subsequently ligated, and a skin graft applied with a satisfactory result. Table 2 summarizes the complications.

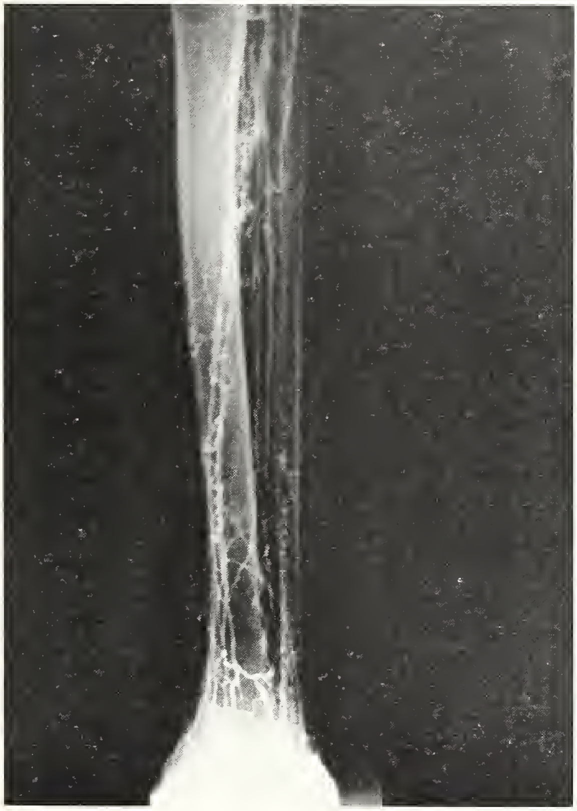

Fig. 6 Follow-up phlebogram showing persistent perforating varicose vein from the posterior tibial vein resulting in a large recurrent venostasis ulcer.

TABLE 2

COMPLICATIONS

1. Wound infection	3
2. Skin slough	3
3. Moderate edema	2
4. Severe edema	1
5. Recurrent leg ulcer	1

Clinical results are listed in Table 3.

TABLE 3

CLINICAL RESULTS

1. Satisfactory results	48
2. Persistent leg edema	3

Summary

In a follow-up period of one to five years, 51 subfascial vein ligations were performed with 48 satisfactory results, one extremely poor result and two fair results. These patients have returned to work and their other normal activities. This operative procedure will afford excellent results in carefully-selected patients. Factors contributing to the three unsatisfactory results are discussed.

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(Continued on page 664)

JEAN-R. DUPONT, M.D., ***Sikeston***

Amputations in the Aged

Experience with the Immediate Postoperative Fitting in the Community Hospital

This subject was reviewed in the April, 1970 issue of MISSOURI MEDICINE by Robert W. Allen, M.D., and Lester E. Wolcott, M.D. of the Department of Physical Medicine and Rehabilitation, University of Missouri-Columbia School of Medicine. The program described in this paper was instituted by the author in conjunction with that Department and presents the results of these efforts in the setting of a community hospital. Dr. Dupont is in the practice of surgery and on the staff of Missouri Delta Community Hospital.

THIS REPORT calls attention to a technique of amputation, stump handling and rehabilitation which has yielded highly acceptable results in a small group of extremely unfavorable patients. The technique is applicable in the community hospital.

For years, surgeons have routinely performed above-knee (A-K) amputations for arterial insufficiency of the lower extremities, especially if the patient is elderly. This practice, in effect, condemns the elderly amputee to the wheel chair or bed for the remainder of his lifetime.

Energy expenditure required for a patient to use an above-knee prosthesis is much greater than that needed for crutch-walking or a below-knee device.[1] Only one of ten patients with an A-K amputation, therefore, can be expected to learn to use an A-K prosthesis.[2] Furthermore, the problem is compounded if rehabilitation of an elderly patient is delayed for months until the "stump is ready."

Among the rural population, in particular, one is often impressed by the vigor and excellent state of preservation of many people in their late 70's and 80's. It would seem desirable, therefore, to have a program of definitive care and rehabilitation which will allow the elderly amputee with vascular disease to return to his former place in society. In addition, society will realize a financial dividend in terms of hospital and nursing home time saved.

MATERIAL AND METHODS

In September, 1968, a program of immediate postoperative fitting of amputees was instituted at the Missouri Delta Community Hospital in Sikeston, Mo. in conjunction with the Department of Physical Medicine and Rehabilitation, University of Missouri-Columbia School of Medicine. All patients on the authors service were amputated according to the technique described recently by Condon[3-5] with immediate application of a plaster of Paris cast to the stump. During the first 12 months of this program, nine amputations were done in eight patients over 75 years of age—all for ischemic disease of the lower extremity. No consideration was given to the pulse status of the amputated limb, to diabetes or to the presence or absence of infection in the extremity.

The salient features of the technique are as follows: The tibia is transected at a level of 2 to 3 inches distal to the tibial tubercle. The anterior flap is generally cut at the same level, whereas a longer 6-inch posterior flap consisting of skin and gastrocnemius muscle is utilized. To ensure myodesis, the gastrocnemius muscle is sutured to the tibia through predrilled holes. The tibia itself is cut at 90° and 45° angle to this cut so that a bevelled bony stump is obtained. No wound drains are used. The tissues are sutured with routine closure materials. Following wound closure, a light gauze dressing is applied. The stump is padded with sterile lambs wool and the extremity is covered with an Orlon Spandex stump sock. Felt pads are then placed and the stump and the thigh are wrapped with elastic plaster of Paris bandage (Johnson & Johnson Orthoflex).

After a couple of rolls of elastic plaster of Paris, the adjustable prosthesis is incorporated into the cast.

Results

From July, 1968, to June, 1969, eight patients over 75 years of age underwent amputation for complications of peripheral vascular occlusive disease of the lower extremities. Immediate postoperative fitting of prosthesis or application of a rigid dressing was carried out in six (Table 1). In five of these patients, the popliteal artery or its trifurcation was occluded as demonstrated by arteriography. Two patients also had occluded profunda femoris arteries. Muscle wasting was a prominent feature in all but one of these patients, and two of them were frank diabetics. Another two were not receiving therapy for diabetes, but had elevated fasting blood sugars. Infection of the foot or lower leg was present in three patients, and skin edema came within one inch of the lower skin incision in two. Because of senility, two of these six patients were not considered suitable candidates for rehabilitation preoperatively. The other four, while elderly, had been self-sufficient preoperatively and returned to their homes ambulating with only a cane within three months of the date of amputation. There were no major wound complications in this group. A prepatellar ulcer the size of a 25¢ piece developed in one patient after rehabilitation had begun. It has since healed. During the same 12-month period, three conventional above-knee amputations were performed in two patients over 75 years of age. A staph aureus wound infection developed in one. These patients have not been rehabilitated.

Discussion

As health standards improve and people live longer, an increasing number of geriatric patients will come to amputation. The present study involves a small group of elderly amputees with peripheral vascular disease. Four of six amputees who had immediate postoperative fitting of a prosthesis and the application of a rigid dressing were rehabilitated within three months. This group of amputees violates all established principles for below-knee amputations for ischemic disease. Muscle wasting was pronounced, diabetes and infection was present and the popliteal artery was occluded. However, all healed their stumps per primam without serious wound complications.

TABLE 1

Patient	*Age*	*Type of Amputation*	*Preexisting Infection*	*Preexisting Diabetes*	*Per Cent HCT*	*Popliteal Pulse*	*Profunda Fem. A.*	*Muscle Wasting*	*Rehabilitable*	*Rehabilitated*
#1	81 N/M	BK Immediate Prosthesis	Present	0(FBS↑)	30	Present	Patent	4+	Questionable	Yes
#2	75 W/M	AK Immediate Prosthesis	Absent	0	41	Absent	Patent	1+	Yes	Yes
#3	81 W/M	BK Immediate Prosthesis	Absent	0(FBS↑)	39	Absent	Clotted	2+	Yes	Yes
#4	84 W/F	BK Immediate Prosthesis	Present	0	34	Absent	Patent	4+	No	—
#5	76 W/F	BK Immediate Prosthesis	Absent	Yes	35	Absent	Clotted	2+	Yes	Yes
#6	75 C/t	BK Immediate Prosthesis	Present	Yes	32	Absent	Patent	2+	No	—
L. R.	84 W/M	AK Conventional	Absent	0	45	Absent	Patent	3+	No	—
R. S.	83 W/M	*AK-Bilat. Conventional	Absent	0	32	Absent	Patent	3+	No	—

* Post-operative Staph Aureus wound infection in the left stump.

The success of this method in this group of unfavorable patients bears out the point made by Sarmiento and Warren[6] that bleeding of skin flaps at operation, rather than the status of the major vessels, is the more important criterion in determining the level of amputation.

We believe that the application of a rigid dressing in these patients is a significant step forward in the surgical care of the stump.[7–8] It decreases postoperative edema and, therefore, prevents impairment of the already marginal circulation. In addition, it augments patient comfort and decreases postoperative requirement of analgesics.[9] A rigid dressing would appear to be a distinct asset even if the patient is not considered a suitable candidate for a prosthetic fitting. We have employed as our only selective criterion the patient's ambulatory status prior to the illness which led up to his amputation.

The technique and special features relative to the amputation itself have been fully discussed by Condon.[3] Suffice it to say here any surgeon who desires to employ this method would do well to learn the technic in detail. A significant number of failures has occurred when the uninitiated attempted to employ it.

It is undoubtedly a sensible rule to avoid making an issue of early weight bearing.[10] Most of our patients were walking well between parallel bars within three weeks of their surgery. As a rule, we have not employed a walker or crutches in the training of these patients. Most elderly patients cannot learn to use crutches satisfactorily, but they get along well on below-knee prosthesis. Some can learn to use bilateral below-knee prosthesis under these circumstances. This becomes an important feature since it has been estimated that about 25% of vascular amputees will eventually become bilateral.[11]

SUMMARY

There can be little doubt that the technique described by Condon, Weiss and others offers distinct advantages and breaks with several points of established but unfounded surgical tradition:

(A) Below-knee amputations can be employed and are the choice in amputations for peripheral vascular ischemic disease of the lower extremities, even in elderly diabetics with marginal circulation below the knee.

(B) A significant number of elderly patients can return to a self-sufficient status when immediate postoperative fittings are applied.

(C) Wound complications are fewer and the patients are more comfortable when a rigid stump dressing is employed. The stump need not be drained.

(D) The increased potential for rehabilitation will represent a significant savings in nursing care expenditures to both state and federal agencies, since many of these patients are recipients of Medicare, as well as Medicaid funds.

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Australia Antigen and Hepatitis

A Review

Blood transfusion exposes a recipient to many foreign antigens; these are found not only on the formed elements of the blood, but also in the circulating porteins. Realizing that antibody formation is related to antigenic exposure, Allison and Blumberg[1] in 1961 postulated the presence of antiprotein antibodies in multitransfused patients. A search for such antibodies was undertaken, using a double-diffusion gel precipitation (Ouchterlony) system. Sera from multitransfused hemophiliac patients (presumably containing antibody) were diffused against sera from several populations. In a reaction involving serum from an Australian aborigine, a distinct precipitation band was noted,[2] indicating the presence of the proposed antigen-antibody reaction. The reacting component in this Australian serum was called "Australia antigen" (Au), and the antibody from the hemophiliac was called an "isoprecipitin."

Studies to detect the distribution of the Au antigen and the supposed isoprecipitin were then initiated. As was anticipated, the appearance of the isoprecipitin in an individual was related to the number of times that individual had been antigenically stimulated by transfusions. Thus, 29% of hemophiliacs, who necessarily receive many units of blood components, were found to have the antibody in their serum.[3]

The search for the antigen was less productive; positive sera were initially found in Oceanic, Oriental and Mediterranean populations, but no reactors were found in 700 normal individuals screened in the U. S.[3] Further studies pointed to its presence in the sera of patients with leukemia,[2–4] Down's syndrome[4–6] and lepromatous leprosy.[7]

As investigation continued, an association of Au antigen with hepatitis became obvious. Blumberg examined 125 patients with confirmed viral hepatitis and found 20% to be positive for the antigen.[8] No association of Au antigen with other liver diseases such as infectious mononucleosis, hepatic cirrhosis or hepatoma could be found. Similarly, Giles and co-workers[9] found that all patients who developed long incubation (MS-2) hepatitis were positive for the Au antigen. In addition, Hirshman and co-workers[10] found that of eight hemophiliacs with antibody, five had a history of hepatitis. Prince examined sera obtained from patients prior to the onset of clinical hepatitis and found a circulating antigen in eight of ten such patients which he called SH.[11] SH was shown to be antigenically similar, if not identical, to the Au antigen.[8, 12] More recently, the antigen has been associated with epidemics of hepatitis in renal dialysis units.[13–15] Finally, fluorescent anti-Au has been shown to bind to nuclei of hepatic cells in biopsy specimens from patients with hepatitis.[16]

Characterization of Au Antigen and Its Corresponding Antibody

The antigen is primarily protein, migrating toward the α_1 region on immunoelectrophoresis.[17] It has a density between 1.22 and 1.27[18] and is in the exclusion volume of Sephadex G-200.[17] A small amount of lipid is felt to be present, because of faint staining of the antigen with Sudan black[3] and because the particle exhibits an increase in density and a decrease in size following extraction with lipid solvents. The density gradient fraction with antigenic activity, when examined by electron microscopy, has been shown to contain particles ranging from 190°-210Å in diameter. The particles have knoblike subunits about 30Å in diameter on their surface.[10, 19] Identification of these particles has been confirmed by their agglutination with rabbit antibody specific for Au antigen. They have been said to resemble picorna-viruses[19] or the defective adeno-associated virus.[18] The particles from serum of hepatitis patients who received blood or blood products parenterally ("serum" hepatitis) have an appearance similar to particles from patients with only an infectious history.

The isoprecipitin has been shown to be an an-

A review of the history and characteristics of the Australia antigen, its antibody and their relation to hepatitis. Dr. Grindon was an Assistant Professor in the Department of Internal Medicine and Mr. Rongey was a senior student at St. Louis University School of Medicine at the time this paper was written. Dr. Grindon is now Blood Bank Director at Johns Hopkins Hospital in Baltimore, Md., and Dr. Rongey is an intern at St. Louis University Hospital.

tibody which can be produced in rabbits.[20] In humans, it is an IgG immunoglobulin.[17] The term "isoprecipitin" suggests antibody directed toward a heritable antigen. Because most of the current evidence favors the association of the antigen with hepatitis, an infectious process, it is perhaps best to discard the term "isoprecipitin" in favor of the more nonspecific term "antibody."

Relationship to Hepatitis

It must be restated that not all patients with hepatitis have detectable Au antigen. The incidence varies from one series to another, and may depend upon many factors: (1) the certainty with which the diagnosis of hepatitis is made, (2) the sensitivity of the method of detection of Au antigen, (3) the type of hepatitis, (4) the relationship of the time of examination for Au antigen to the natural history of the disease, (5) the geographical location of the study and (6) the presence of familial predisposition. The first of these factors is self-evident.

Initially, the only method for detecting the Au antigen was the gel diffusion technique. More recently, complement fixation (C-F) methods have been developed.[21, 22] Early reports indicated that the C-F technique had a greatly increased sensitivity. However, recent data comparing the two methods indicates that although the C-F technique was more sensitive, the antigen is likely to be present in the larger amounts detectable by agar gel diffusion. In fact, in 97% of sera analysed by both techniques, the Au antigen was found in both agar gel and C-F tests. The major reason for the variation in incidence of the Au antigen in different series may not be related to the sensitivity of the test.

Type of Hepatitis

Viral hepatitis has traditionally been divided into two clinical types, serum and infectious. Studies of posttransfusion hepatitis have led some to consider the mode of transmission to be a critical factor determining the incubation period. Recent work of Krugman[23] has shown that the incubation period may be dependent only upon a type of virus and independent of the mode of transmission. With oral transmission, he has produced both a long incubation (MS-2) and a short incubation (MS-1) disease. If several antigenically unrelated viruses produce the clinical picture of hepatitis (which would be consistent with Krugman's findings), then clearly the frequency of detection of Au antigen in patients with hepatitis would depend upon which virus is responsible. Indeed, when Giles[9] examined the sera from Krugman's hepatitis studies at Willowbrook, she found Au antigen to be constantly related to the MS-2 strain of hepatitis, whether the patient was inoculated parenterally or orally. She has not found the Au antigen in patients with the MS-1 strain.

Further support for Krugman's hypothesis was found when London examined an outbreak of hepatitis in a hemodialysis unit.[15] He found Au antigen in a significant number of patients who received chronic hemodialysis. He also noted its presence in several staff members who had no history of transfusion or needle exposure but had contracted hepatitis while working on the dialysis unit. The epidemic seemed to be related to a single epidemiological agent. Au antigen was found in 100% of individuals with evidence of hepatitis who were tested with agar-gel diffusion. In this series with the outbreak likely due to a single agent, the frequency of detection was high. In other studies with less well-defined epidemiology, detection rates are lower, suggesting that the test may be detecting only one of possibly several infectious viruses.

Levene[24] has recently described another antigen related to hepatitis, Au(2), which shares antigenic determinants with the original Au(1). The former apparently is more common in hepatitis, Down's syndrome and normal donors than is the latter. Whether Au(2) represents a different determinant of the same virus or a determinant of a different virus is presently unknown.

Temporal Relationships

Ability to detect the Au antigen appears to vary with the clinical stage of the disease. Prince[11] showed that highest levels of antigen may precede peak levels of hepatic enzymes by six weeks. Gocke and Kavey[25] found that maximum levels of their antigen preceded the peak of clinical illness; 80% of their samples obtained in the first 12 days after the onset of symptoms were positive, but fewer sera were positive at a later date. Twenty-five percent of the patients studied by Giles and co-workers,[9] who were found to be Au positive, would have been missed if samples taken prior to peak levels of SGPT had not been available. Even with a sensitive complement fixation test, Shulman and Barker[21] found it necessary to analyze sera drawn at frequent intervals during the illness to achieve their level of 98% detection. Failure to detect the antigen in higher yields in some series may have been due to the fact that insufficient or poorly-timed samples were drawn. Though the proper time for analysis is not well documented, it is this factor which seems to be responsible for a large part of the failure to detect the Au antigen.

GEOGRAPHICAL DIFFERENCES

Geographical differences in the incidence of the carrier state of hepatitis have been suggested.[26] Such differences may explain the variation of recovery of Au antigen from normal donor populations in different geographical areas: 0.09% in America and 1.19% in Japan.[27]

Another manifestation of the geographical problem is the variable incidence of Au antigen seen in patients with Down's syndrome. In large institutions, 28% of such patients had the Au antigen,[4] while similar patients from smaller institutions had an incidence of 1.5%. The most plausible explanation for this discrepancy is that hepatitis is more prevalent in the patients and personnel of the larger institutions.

HERITABLE PREDISPOSITION

Family clusters and segregation analysis of a Cebu population[5, 28] have indicated the clear statistical possibility of autosomal recessive inheritance of Au antigen.

Analysis of sera from families in Bougainville also reveal a familial clustering of the Au antigen. In some cases, incidence of Au antigen as a result of clustering in villages was 23.9%. If the antigenemia is truly a result of an inherited susceptibility to the agent, further consideration of the disease process in affected individuals might be rewarding. The people tend to have a nonsymptomatic, chronic type of hepatitis, manifest often only by slight elevations of SGPT. The condition most probably is the result of an immunological flaw which allows persistence of the antigen.

IMMUNE FLAW

The association of the Au antigen with hepatitis does not explain the increased incidence of the antigen in some forms of leukemia, lepromatous leprosy and Down's syndrome. Certainly, the types of leukemia in which an increased incidence of Au antigen is seen are those types most likely to have received transfusions of blood and blood products. Some of the patients with leukemia and most of the patients with leprosy, however, have not been recipients of transfusion. This suggests, first of all, that the Au antigen can be acquired nonparenterally. Just as interesting is the speculation that the antigen is present in the serum of such individuals because they have a defective immune response. Delayed hypersensitivity has been shown to be faulty in lepromatous leprosy,[29] and patients with leukemia have often received immuno-suppressive agents. Family clusters of individuals positive for the Au antigen may represent a heritable flaw in an immune mechanism of the members of such families. Such individuals would be unable to have a normal response after exposure to Au. This does not explain their failure to develop symptoms of hepatitis. This atypical response to infection with Au may also be observed in renal dialysis units.[14, 30] Uremic patients, known to have impaired immunological responsiveness, exhibited mild disease while normal staff members became more acutely ill with the same epidemiological agent.

TERATOGENICITY

Stoller and Collman[31] reported that a peak in the incidence of hepatitis was followed nine months later by an increase in the incidence of infants born with Down's syndrome. An epidemiologic basis for a possible teratogenic effect of hepatitis virus (Au antigen) has thus been established. To date the antigen has not been detected in sera of newborn babies with Down's syndrome.[6] Nevertheless, patients with Down's syndrome seem to be extremely susceptible to acquisition of the antigen; an induced immune flaw, previously mentioned, is therefore postulated as the cause for the association of the antigen with Down's syndrome.

ANTIBODY TO AU ANTIGEN

Investigations have primarily been involved with characterization and localization of the Au antigen. A few studies also have included information about the antibody found in patients with hepatitis. Holland, *et al*[32] have suggested that naturally-formed antibody to the Au antigen does not completely protect against hepatitis. They cite two cases which developed antibodies before developing clinical hepatitis. They also note four cases in which antibody was present and posttransfusion hepatitis did not develop. Their data suggest either inadequate protection by antibody or infection caused by an agent other than Au antigen. Either possibility may be significant in further development of hepatitis vaccine, which could be made by using Au antigen as an immunizing agent.

Summary

Study of the relationship between Au antigen and hepatitis will provide knowledge of the pathophysiology of hepatitis and other viral diseases with long incubation periods. Such knowledge should lead to the development of preventive measures, such as the above mentioned anti-hepatitis vaccine.

Several immediate benefits of the work with antigens associated with hepatitis are now evident. Detection of the Au antigen with available techniques will confirm the diagnosis of hepatitis; persistence of the antigen may have prognostic significance.[33, 34] The Au antigen can be used to monitor the development of hepatitis in high risk groups, such as narcotics addicts[35] and patients undergoing chronic hemodialysis.[13, 36]

Because the most frequent cause of death resulting from blood transfusion is hepatitis, these recent developments have great importance to transfusionists. The risk of anicteric hepatitis following blood transfusion may be as high as 8.7% for each unit transfused.[37] The incidence of hepatitis carriers might be expected to be of this magnitude, yet currently available techniques will detect the antigen in a maximum of about 0.1% of normals.

Recently, the National Academy of Sciences issued a statement on routine screening of blood donors for hepatitis.[38] The Academy estimated that 30,000 cases of overt illness and from 1,500 to 3,000 deaths result from transfusion-associated hepatitis each year in the United States. Realizing the value of a laboratory test for detection of hepatitis in an asymptomatic carrier, yet understanding the limitations of screening for Au antigen at present, they stated, "It is clear that the sensitivity and specificity of the tests for Au antigen vary among laboratories and there is no agreement on the establishment of a uniform test or tests. . . . With the tests at the current level of sensitivity, only one fourth of the cases of viral hepatitis associated with blood transfusion could be related to the presence of Au antigen or antibody in the donor blood."

A more thorough understanding of the relationships of the Au antigen to hepatitis and to hepatitis carriers may allow routine screening of blood donors for the presence of the Au antigen and reduction of the risk of posttransfusion hepatitis.

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A Plan for a Casualty Care and Transportation Program in Missouri

Since the Second World War, there has been an incomprehensibly sluggish general acknowledgement of the dishearteningly antiquated state of services available in the United States for the immediate care and transport of the sick and injured. The recent succession of wartime experiences in the initial management and transport of the injured have repeatedly emphasized that prompt and skilled emergency care and evacuation are the primary requisites for diminishing morbidity and lowering mortality, and this very pointedly underlines the chaotic state of civilian emergency care in America. It would seem reasonable that the American in his own country should have the right to emergency care equal to that afforded the serviceman on a foreign battlefield. That the average accident victim in this country should be first treated by well-meaning, but almost completely untrained, personnel who are often incapable of rendering basic first aid seems almost inconceivable in the light of current medical expertise. Perhaps even more astounding is a comparison of the serviceman, who is placed in a vehicle specifically designed and equipped for the proper management of the injured, and the civilian, who is picked up by what is usually employed for emergency transport in this country—the hearse—and thus rides to his fate in what may be an all too appropriately named vehicle.

To raise the standards of emergency care in the United States to those currently existing in war zones is a challenge which must be met, since accidental death on our highways far outstrips deaths from wars, pestilence and pollution plagues.

The major effort in improving emergency care and transportation should first be directed to the planning of the physical location of ambulance services, emergency rooms for primary care and centers for definitive treatment. Without an overall plan, improvements in the detailed operation of each of these components will be of little avail. This has particular pertinence in rural or sparsely-populated areas where a remarkable percentage of vehicular accidents in the U. S. occur.

The need to develop a well-organized system of ground transportation for the sick and injured is basic to any discussion of a sound Emergency Medical Service system. Awareness of this has evolved from the authors' experience in their research into the current status of emergency care and transport facilities and in the development of a model program for the state of Missouri. It is recognized that in both rural areas remote from medical centers and in the traffic-congested, densely-populated metropolitan centers, air transport can be of benefit, but we will discuss only the fundamental ground system since this can readily be supplemented by aircraft and operational crews as they may become available and economically feasible.

Experience has shown that every emergency service (EMS) area differs in economic, manpower and ancillary support resources and that organization or reorganization must reflect these considerations. Therefore, any independent action taken to develop an EMS area should be a coordinated procedure, on a regional or statewide basis, so that support will be suitable and continuing and such cooperative efforts can produce a high degree of cost effectiveness.

It has been documented that a population of 80,000 people is needed to underwrite an ambulance service purely from the financial point of view. In Missouri, only four metropolitan areas can completely support emergency medical services on a for-profit basis. The remaining areas will and do require public or private subsidization or volunteer efforts or both. Approximately one third of the counties in the state of Missouri are without a hospital and an additional 50% of the counties have hospitals with bed capacities of less than 100. In only five counties do the hospitals have all medical specialties represented.

Since a hospital bed capacity of more than 100 appears to be necessary to sustain a minimally-staffed and equipped emergency room on a 24-hour basis, it is obvious that in 80% of the state of Missouri only basic care can be obtained, while comprehensive care in an emergency room can be secured in less than 5% of the state. It is

"To raise the standards of emergency care in the United States to those currently existing in war zones is a challenge which must be met, since accidental death on our highways far outstrips deaths from wars, pestilence and pollution plagues." The authors offer a comprehensive, overall plan for improving emergency care and transportation in Missouri. Formerly Co-Directors of Emergency Medical Service at the University of Missouri, Dr. Dale is now Medical Field Director, Missouri Crippled Children's Service in Columbia and Dr. Wheeler is Professor of Civil Engineering University of Akron, Akron, Ohio.

unfortunate and often disastrous for people living in rural Missouri and for the considerable numbers of people in transit that the areas without hospital facilities and, thus, those affording inadequate emergency medical services cover large blocks of the state. When there may be more that 200 miles between emergency rooms, careful planning is an obvious imperative to insure that there will be adequate mechanisms for immediate care and transport of accident victims.

At present, the basic and most reliable emergency medical transport system is by highway vehicle. Uncertain weather conditions in Missouri and high operational costs would currently preclude an attempt to develop an airborne transport system. It is possible, however, that air transfer of patients from a primary first aid area to the final treatment center could be incorporated gradually into a well-planned and smoothly-functioning regional or statewide ground vehicular system. For the present, however, the basic focus must be on the location of ambulance squads, the proper selection and training of ambulance personnel and the development of appropriate emergency vehicles.

The initial management of an accident victim who is an hour or more away from even basic medical care is a greater determinant of consequent morbidity or mortality than in a city where definitive care may be only minutes away. In Missouri, as it is throughout the nation, the death rate is four times greater in the country than in the city, even though injuries are usually more extensive in the city.

The life of the injured patient, then, is dependent in large part upon the initial care he receives. This, in turn, is dependent upon the equipment and type of emergency vehicle available to transport him.

Personnel

The most important elements in an ambulance service are the drivers and attendants. On the basis of a five-day, 40-hour week, a minimum of nine persons are needed to operate each vehicle, and due to vacations and sick leave, an additional person is required.

It is imperative that the turnover of employees be kept to an absolute minimum since appropriate training is not only difficult to obtain on a continuing basis, but, also, is very time-consuming. Since driver-attendants are to be given such grave responsibilities, very careful and well-planned selection procedures are necessary. We believe that the following qualifications are essential: (1) Preferably a person over 21 years of age. (2) No record of moving traffic violations. (3) No police record for other than simple misdemeanors. (4) High school graduation. (5) Evidenee of maturity, stability and dependability as accrued from work records, financial records, church attendance and community efforts. (6) Good physical health.

We have found that intelligence testing and other commonly used written evaluation procedures have been quite disappointing in governing the selection of ambulance personnel since these scores tend to reflect learned material rather than innate intelligence. Assuming the previously mentioned qualifications, we feel that a personal interview in depth is a much more satisfactory way of assessing the applicant's suitability. Since this vocation seems to attract people with various types of personality problems, the interviewer should inquire specifically why the applicant desires this type of employment. The replies, while not always factual, can certainly help in eliciting the more blatant of the undesirable traits which can so seriously affect the individual's ability to function in emergency service areas.

The applicant should have a thorough physical examination. Persons suffering from heart disease, hypertension, diabetes and seizures or other conditions which might interfere with proper handling of a vehicle or a patient should be considered undesirable.

The applicant must have a chauffeur's license to operate the ambulance, but it also is desirable that he attend the National Safety Council's course in Defensive Driving since all too frequently the driver will need to operate the vehicle under difficult circumstances.

Salaries for drivers and attendants are the largest single items in the overall budget. Since it is futile to attempt to develop a sophisticated emergency medical service without able, well-trained attendants, the positions must be made sufficiently attractive financially to secure personnel who are deeply interested in and satisfied with their careers. Salaries for these positions will necessarily be higher than those usually proposed under present conditions and should be commensurate with those afforded registered nurses.

Since the financial requirements simply for salaries are considerable, only a few areas in the state can fully support a system of emergency service operated by career driver-attendants. Under these circumstances and, of course, dependent upon the level of services required and available financing, various combinations of personnel may be the only appropriate solution.

In areas of low population density, there may not be sufficient monies available to support salaried personnel even on a tax-supported basis. Here the service may need to depend almost exclusively on volunteers. Due to business and other everyday commitments of volunteers, a minimum of 30 people should be trained for such an operation. Duty schedules must be arranged well in advance with back-up personnel available, and these schedules should be rigidly adhered to. If properly planned, this approach can be publicized and actually become a valued and rewarding civic duty which carries considerable prestige for the participants. Whenever possible, the service should include one salaried full- or part-time member who arranges schedules, orders supplies, secures vehicle maintenance and performs other continuing duties of an administrative nature.

In some communities, the county hospital can consider the inclusion of an ambulance service as part of its operation since it is possible to lower costs materially by assigning ambulance personnel to other duties in various areas of the hospital between ambulance calls. Appropriate duties would be in the emergency room, intensive care units, recovery room, inhalation therapy and delivery units. The training and expertise of these individuals would make their services invaluable in these areas. It is an important requisite that such duties would not interfere with the primary function of these individuals or prevent their immediate departure on an ambulance call. The drivers and attendants should carry pocket pagers to permit immediate contact with them. Ancillary hospital duties can be rewarding for ambulance personnel since these would fulfill, at least partially, the need for continuing education under supervision.

It is clear that the proportion of salaried and volunteer personnel will vary considerably depending upon local requirements and financing, but it is vital that a similar quality of training be given to all.

Combining emergency medical service planning with the operations of other emergency types of services has been successful in some areas. In our opinion, a combination with the police is undesirable since, following an accident, the duties of the police in traffic diversion and participation in the mechanics of wrecker operations do not give them the needed freedom to invariably join in assuring immediate management and transport of the injured. Combined operations with fire departments appear to be more reasonable since there are fewer coincidences of fires and accidents.

During the past ten years, there have been many programs proposed for training ambulance attendants. In our opinion, however, the majority have serious deficiencies. In most instances, attempts have been made to train the attendant in a three- or four-day period. This apparently has been predicated on the almost completely erroneous assumption that these individuals have some previous knowledge of the subject. Even after exposure to the current basic and advanced first aid courses, there are few attendants who can be expected to act promptly, rationally and without supervision in the variety of emergent life and death situations which they are likely to encounter, after so brief a training program.

A few institutions have proposed a two-year course leading to an associate degree in emergency nursing and this, followed by a one-year internship, would seem to be quite adequate for training of career personnel. In the first year, basic science courses would be offered, followed by a year of clinical science and supervised clinical practice. With such a background, the career status of the emergency medical technician would, in all probability, be insured. A course similar to the one offered LPN's for a 12- to 18-month period might be acceptable but would really be less desirable. In any event, the basic science courses should be similar to those offered in regular nursing courses, whereas, during the clinical experience, emphasis should be placed on emergency situations such as accidents, intensive care problems, cardiac arrest, childbirth, acute psychiatric syndromes, etc. Upon graduation, the technician would be accepted as a competent worker in the emergency or critical care areas of the hospital as well as in the out-of-hospital ambulance program.

Training of this sort undoubtedly will not be generally available in the near future and certain adjustments will need to be made to conform to present realities. To provide quality instruction at present, the physicians who see the patient initially in the emergency rooms must be recruited and proselytized to act as preceptors in a continuing in-service program for all attendants. This type of training should continue even when more formal educational facilities and opportunities become available. Refresher courses eventually should be required for renewal of the technician's license.

For the present, the minimum requirements should include basic and advance Red Cross training or a recognized equivalent and a minimum additional program of instruction designed and administered by the State Medical Society. Attendants should be licensed only on the successful completion of these courses and after passing written and oral examinations. Hopefully, standards could be raised as improved training methodology is designed and made available so that adequate emergency care could become generally available.

Although some ambulance operations designate ambulance personnel as either drivers or attendants and prescribe differing pay scales, it is our opinion that due to unavoidable errors of scheduling and illnesses, all personnel should be trained to perform in both categories. If this were not done, it is conceivable that two drivers or two attendants could find themselves on duty at the same time.

The EMS System

To effectively and efficiently utilize the resources which are available, the state should be divided into EMS regions without regard for current political boundaries. A hospital in the center city of each region will serve as the coordinating base for all emergency services in that area. Hopefully, this hospital would be staffed with all necessary specialists and have appropriate equipment.

The EMS region could include ten to twenty counties. Within each region, smaller ambulance districts consisting of two to eight counties could be organized so that each could have at least a minimally-equipped and staffed emergency or first aid station. The basic unit of ambulance service would be the local unit, which should service an area with a radius of approximately 20 miles.

In time of disaster, district and regional areas would function in the coordination of services, routing patients where facilities and other support were most available. On a routine basis, each county within a district could act as a backup organization for neighboring counties. Obviously, district operations will need to be relatively fluid so that assistance and support can go where needed without depleting any one area completely. Such elasticity is practicable only with a well-planned and coordinated communication system.

Since tax rates and other resources vary from county to county and even within counties, the EMS system should logically be set up as a statewide operation quite similar to the state police situation. Under these circumstances, there would be no contraindication to the crossing of city or county limits which at present has a deleterious influence on the provision of care. In actuality, a national system can readily be envisioned in which state boundary areas would no longer be road blocks in the path of the provision of high-caliber emergency service. Although a national system is theoretically workable, a basic obstacle is the scarcity of local physicians and emergency rooms. Until more regional centers are developed, this drawback will have to be overcome by a well-organized communication system.

Despite the fact that an ideal EMS system may be years in the future, proper planning and state supervision can insure that the present situation can be improved with a very modest investment of time and money.

The EMS Ambulance

An ambulance must be an extension of the emergency room in terms of life-saving equipment and trained personnel. The vehicle has two compartments—one for the driver, the other for patient care. In the patient compartment, sufficient space is required for two or more victims, a seat for the attendant, adequate room (both height and width) for rendering care and for medical supplies and equipment. Since victims of motor vehicle or other accidents may require extrication by the ambulance crew prior to initial treatment, the ambulance should contain some basic equipment for this in areas of the state where there are no rescue squads. To make the equipment more available and, also, because of the limited storage space within the vehicle, it should be placed where access can be gained from the outside of the vehicle.

In 1968, the Emergency Health Services Branch of the U. S. Public Health Service published a list of minimal requirements for the internal dimensions of an ambulance. These were listed as height, 54 inches; width, 72 inches; and length, 110 inches. It is obvious from these minimum dimensions that the vehicle loses the sleek look of the limousine, hearse-type ambulance. Of the vehicles currently available, the chassis-mount camper truck and the van-type truck are those most easily converted for ambulance use. The vehicle should be chosen with the terrain of usage in mind, whether urban or rural, so that with proper internal design for load placement, the patient may have a comfortable ride. In addition, the vehicle should provide the driver the room and power (two- or four-wheel drive) which may be required by local topographic considerations (poor secondary roads or off-road operation). The disadvantage of such a vehicle is its length. This could be reduced if a cab-over-engine were manufactured for the class of weight chassis required. The height of the eye of the driver would be raised advantageously, but over-cab storage would be reduced.

Other requirements as listed by the PHS are separate driver and patient compartments; illumination adequate for medical treatment, separate temperature control of patient area, two-way radio, warning devices and design and equipment which can permit treatment of at least one patient during transportation. The ideal vehicle should reflect, in its size and equipment, the capability for life saving and a reduction of morbidity. It is envisioned that as more sophisticated medical emergency equipment becomes available and training in its use is more extensive, the present minimum dimensions will not be adequate. Nationally, we face the problem of designing and manufacturing the variety of vehicles which will be needed to serve the different types of terrain encountered in this country.

THE RADIO COMMUNICATION SYSTEM

The radio communication system for EMS should be a reliable link of the ambulance to the emergency room, law enforcement agencies and physicians in remote rural areas. Unfortunately, radio communication is limited to approximately a 20-mile radius from the base station and changes in topography, land depressions, valleys or the backside of hills and mountains can severely restrict transmission and reception. The local radio system functions to direct the ambulance to the scene of the emergency, to relay calls to and from law enforcement agencies, to contact various emergency rooms in the areas regarding available facilities and to indicate the number and time of arrivals of casualties. It can additionally be life saving when used to direct the treatment given by the attendant at the scene and en route to the emergency room.

Extreme care must be taken in the selection of a radio system since overzealous salesmen may attempt to sell a product far too powerful for the needs of the area. This can result in poor local reception and even "skipping" into distant areas with a resultant block of their systems. Before purchasing any system, it is preferable to thoroughly discuss the alternatives with groups who already have installed a program. The state government also may have consultants who can serve as advisors.

One of the prime defects in present EMS systems is the lack of treatment facilities at the local level. At the present time, there are 39 counties in Missouri without a hospital and there are 26 counties with hospitals with less than 50 beds. Realistically, an adequate emergency room in a hospital of this size cannot be expected; therefore, in at least one half of the state, emergency care will not be readily available locally. It follows, therefore, that in cases requiring more sophisticated immediate medical attention than that which the attendant can render, some provision will need to be made for stabilization of the patient's condition prior to transportation to the distant medical center. In these areas, physicians could be equipped with pocket radios and the ambulance attendant could then arrange to meet the physician at his office or in the first aid center where initial treatment could be begun. As soon as the patient's condition is stabilized, he can then be transferred to the hospital for definitive care.

It is apparent that in any EMS system, smooth functioning of the operation is to a great extent dependent on the communication system. In metropolitan areas, paid operators will be needed to operate the radio on a 24-hour basis. In rural areas, however, the dispatcher can readily be based in the local sheriff's office or at the telephone company. No matter what the area's size or the population involved, it is imperative that the EMS operation be on a continuous 24-hour basis.

Ambulance drivers will be aided greatly in reaching the site of an emergency if they are furnished with maps with coordinates. In this manner, "an accident on Route 7" is translated to "13-C" which can pinpoint the site to which the vehicle is directed.

Each EMS communication system should be equipped with four frequencies—the first for routine day-to-day operations within the system, the second for routine between-service operations, the third for contact with law enforcement agencies and the fourth to be reserved for disaster operations only. This last frequency would be common to all emergency services within the area. While such a system would initially be more expensive, subsequent savings realized from such a coordinated service would soon offset the initial investment.

Routine Medical Transportation

To complement the emergency transportation service and to secure continuous utlization of its components, the use of the ambulances for the nonemergency patient on routine trips from home to hospital or clinic and the transfer of patients between hospitals and convalescent homes can be readily and profitably incorporated into the operation. In these circumstances, the patient could be of the semi-ambulatory, wheel chair or stretcher-type of case. In more densely populated areas, this service might require two or more special vehicles—a van-type for the walking and wheel chair outpatients and an ambulance similar to that used by the local EMS for the patient who must be transported on a cot. In less densely populated rural areas, back-up ambulances would be needed to insure that transportation would be available for the EMS patient when the prime vehicle is involved in other services. All of these ambulances should have a radio, medical supplies and equipment.

By assigning routine scheduled medical transportation to area morticians, the development of a local EMS system often can be achieved initially without great expense. Unfortunately, the time required for transportation of individuals for tests, treatment or admittance at a medical center is often excessive. Experience in rural areas indicates that the round trip usually requires two or three hours and often almost one working day is consumed because of waiting time at the center. Proper planning must incorporate arrangements to either hospitalize, treat or discharge the patient within a given length of time, since, otherwise, the services will be forced to levy expensive tolls for waiting.

Although many authorities wish to separate routine and emergency medical transportation completely, we feel that this is only feasible in the large metropolitan areas. The routine transportation vehicle affords vital back-up in any instance when more than the usual number of emergency vehicles are needed.

Two accidents occurring simultaneously at opposite ends of the district or a single accident in which three or four persons are injured can easily overwhelm almost any emergency system. It is mandatory, therefore, that morticians be encouraged to afford standby equipment and coverage for the emergency service should they not desire to continue actively in emergency care themselves. It should be stressed that all personnel, in routine or emergency transportation, should be as well trained as circumstances can permit.

The Mobile EMS Station

A medical disaster may be defined as any event resulting in injury or death to more persons than can be accommodated easily by a local emergency room. A disaster situation could occur in a small hospital, which would be no more than routine in a larger facility. Disasters are caused not only by hurricanes, atom bombs or airplane crashes. Bus wrecks, fires, or even food-poisoning in a nursing home can mean disaster to a smaller treatment facility. In short, any event that suddenly and completely overwhelms the emergency facilities is a disaster. Certain disasters have occurred because of lack of coordination of facilities, when all patients were brought to one medical center while other centers were not used at all, even though they were closer to the accident scene. To avoid such a calamity, we propose the construction of a light trailer, designed and equipped to act as a triage station. A trailer, completely stocked with equipment, could be pulled to the accident scene either by the ambulance or an automobile. The trailer, equipped with a power generator, rescue tools, radio communication, medical supplies and equipment, also could serve as a base for search and rescue and coordination of patient flow into surrounding medical centers, as well as a triage operation.

The crew, including volunteers, would be responsible for the power, equipment set-up, search and rescue, communication, clerical transportation and supply operations. Due to the variety of specialties needed and the high probability that at any one time some members of the team might not be available, three times the needed complement should be trained. It would be advisable to have hospital personnel not connected with the emergency room to be trained for this operation, since they would be more readily available. All ages and sexes could be employed and, if needed, a 24-hour operation could be maintained if all members responded to call on a shift basis. Dual training would reinforce manpower needs. It would be necessary in remote areas to request that distant emergency medical centers send supplies in returning ambulances or on their initial trips. The equipped trailer should be suitably housed, the generator frequently checked and supplies rotated at specified intervals to prevent deterioration. A quarterly or semi-annual drill for training purposes would be suggested. The housing of the trailer would be the responsibility of the ambulance organization, either on a district or regional basis. The vehicle itself could be stored either by the organization or an appointed individual in a heated enclosure which would be available for immediate access by the person responsible for towing it to the accident scene. The supplies might vary, but the following list is indicative of what might generally be required:

Medical bag: Drugs and I-V fluids deemed necessary for treatment of burns, blood loss, shock, etc.

Medical equipment: Oxygen and masks, airways, sphygmomanometers, stethoscopes, splints, stretchers, back boards, surgical instruments.

Medical supplies: Bandages, adhesive tape, I-V fluids, surgical gloves, urinals, emesis basins.

Radio communication and administration: Portable transmitter and personal portables, patient tags, patient tag forms, supply flow forms.

Power and lighting: Generator, light bulbs, cables, light and power sockets, battery chargers.

Personnel equipment: Coveralls, hard hats with head lamps, work gloves, boots.

Rescue equipment: Ropes, short scaling ladders, porta-power tool kit, sledges, pry bars, basket litters.

Other: Water supply, electric heater, coffee pot and coffee.

SUMMARY

A general plan for organizing and initiating a medical emergency service program has been outlined. For competent and economical operation, it is imperative that preliminary planning of the entire operation be carried out on a statewide basis to prevent wasteful duplication and to insure that each area has adequate facilities available. The selection of personnel, their training and their salaries will be the largest single item of the service. No system can function efficiently without well-trained, career personnel.

The system is dependent on a coordinated communications system with links from the local areas to district and regional bases. Intercommunication with law enforcement and other emergency personnel is also vital.

An outline for vehicle design has been presented in addition to suggestions for an auxiliary trailer to be used in disaster conditions.

With proper overall planning for emergency care and with integration of existing facilities, we believe that any given area in this country can move smartly ahead in the rendering of adequate aid to its accident victims.

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The Training of a Physician: Teaching Medical Techniques

According to Gunnar Biorck, the doctor's job consists mainly of making decisions. The objectives of his training enable him to cure illness and preserve health. The author discusses the four basic techniques needed by the student before he proceeds to the literal practice of how to become a physician. Dr. Klachko is an Assistant Professor in Medicine at the University of Missouri School of Medicine and acting director of the course, "Introduction to Clinical Medicine for First- and Second-year Students."

As Ausubel has stressed, what a student can learn depends mainly on what he already knows.[1] Shulman regards any course as a bridge between these "entry characteristics" of the student and the objectives of the course.[2] Thus, education is a continuum from the cradle to the time when learning stops and the education process usually proceeds from the general to the particular. An arbitrary outline of medical training would start with general sciences and humanities in grade school, proceed through biological sciences and psychology to human biology and sociology and, finally, human pathology, in all its ramifications, and the means of its correction.

Education is the acquisition of both facts and techniques. Traditionally, the emphasis has been on facts. With medicine encompassing everything from molecular biology to outer space nowadays and with the "information explosion" in every field, the impossibility of even attempting to teach everything is obvious. Thus, the emphasis has shifted to teaching the basic facts. I do not wish to enter the controversy about which facts are basic and important in medicine, but I believe it reasonable that "core knowledge" should include all about emergencies in medical practice, a lot about common diseases and a little about uncommon diseases. Beyond these areas, the student should be free to enlarge his knowledge and study in depth the fields of particular interest to him. He also needs to learn how to keep his knowledge in the basic areas up-to-date and how and where to acquire further facts by using the literature, fact banks or computer searches, whenever these facts are necessary for managing a patient.

Facts are useless without being able to use them, however. The objectives of training a physician are to enable him to cure illness and preserve health. In order to do this, he needs to deal with people. He needs to acquire data about the patient, he needs to be able to analyze the data to reach a diagnosis and prognosis and he needs to make decisions about tests and treatment. Thus, the physician needs four basic techniques. Two deal with the ability actively to seek and find pertinent data. These are communication, which, in this context, may be equated with the interview and observation, the physical examination. The other two are problem-solving techniques based on logic and statistics. These are data analysis and decision making. Training in these fields is often deficient, and a student has to acquire these techniques by random exposure to their use. In many schools, there is still merely a course in "physical diagnosis" situated in time between the basic science curriculum and the clinical clerkship and concentrating only on aspects of the data collection techniques. I believe that all four techniques should be taught concurrently, preferably starting in the freshman year and, as with all other courses, proceeding from general principles to specific applications (Fig 1.).

Communication

Except in the comatose patient, all management begins with the establishment of rapport between the patient and physician. The student needs to be shown first how to approach the patient and how to obtain the history. The course should begin with general interviewing techniques and the use of the devices of facilitation, silence, the direct or indirect question, etc. The student needs to learn how to remain in control of the interview and how to deal with talkative,

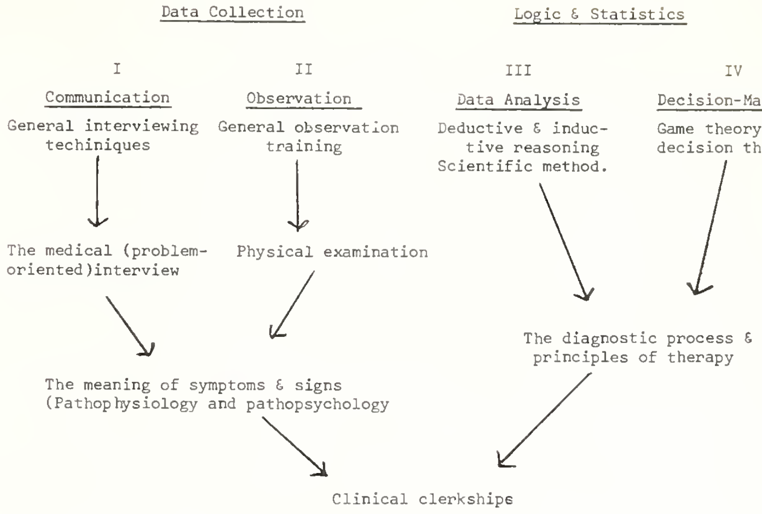
Data Collection
Logic & Statistics
I
II
III
IV
Communication
Observation
Data Analysis
Decision-Making
General interviewing techiniques
General observation training
Deductive & inductive reasoning Scientific method.
Game theory and decision theory
The medical (problem-oriented)interview
Physical examination
The diagnostic process & principles of therapy
The meaning of symptoms & signs (Pathophysiology and pathopsychology
Clinical clerkships

Fig. 1 Outline of an "Introduction to Medicine" course.

silent, hostile or seductive subjects. Many aids are now available. These include books, programmed texts, movies or tapes and simulated patients. The student should be allowed to practice the techniques by interviewing real patients, either with an instructor or with taping of the interview for later revision.

Once the general interviewing technique has been acquired, the student should proceed to the medical (problem-oriented) interview with its more structured format. This portion of the course should include how to organize the acquired information, summarize it and present it to others.

Observation

That this art can be acquired can be seen in many police departments in which policemen are trained to observe and describe people in quite amazing detail. Similarly, medical students can be trained to estimate age, height, weight and body build and configuration. They can be shown the classical physical abnormalities of growth and endocrine diseases and the unusual illustrations appearing in most books of physical diagnosis, but they should be required to describe what they see. This would be an excellent time to introduce dermatology with its emphasis on descriptive morphology.

The abilities to touch and feel size, shape, consistency, texture, etc., and to listen and hear can be trained similarly.

This course in observation leads naturally into physical diagnosis with the accent on organ systems. Concurrently, the students should learn the meaning of symptoms and signs.

Data Analysis

Training in logic is rarely a requisite for medical school, yet the diagnostic process is eminently logical. It proceeds via definition of the patients' problems, problem-oriented organization of the data and its analysis by both sequential branched deduction and by pattern recognition. Sequential-branched deduction requires the use of knowledge of underlying mechanisms of disease, the use of classifications, probabilities and Bayes' theorem, while pattern recognition requires at least a nodding acquaintance with Boolean algebra and Venn diagrams.[3] By these means, the differential diagnosis is formulated, tested and reformulated until a working diagnosis is reached. The assessment of diagnostic criteria and precision in terminology needs to be taught.

This portion of the course should include the teaching of methods of obtaining needed information by use of textbooks, library indexes and computer searches. The basic principles of therapy also can be profitably introduced at this stage.

The student should be made to use these methods of problem solving by use of case reports, computer simulation[4] and real patients, starting with simpler problems and proceeding to more complex ones.

Decision Making

As Gunnar Biorck has illustrated so well, the doctor's job consists mainly of making decisions.[5] He is continually choosing the best lines of investigation and treatment. Even in research, "every scientist who designs experiments and presents conclusions is engaging in decision making in which the costs involved are the time and money for his experiments, on one hand, and damage to society and his reputation if his conclusions are seriously in error, on the other hand."[6] Game theory and its subdivision, decision theory, have been extensively investigated in the past few years, and statistics have even been reformulated as the science of decision making under uncertainty.[6] Decision theory has only begun to be applied consciously in medicine,[7] but its application is sure to increase. The student needs to learn how to list all possible actions, relate them to the underlying "states of nature" (the diagnosis or differential diagnosis), assess the consequences of each action and actively choose the "most return for the lowest cost." This is the type of value judgment which leads one to seek more thoroughly and treat for a curable disease even if the probability of its presence in the patient is less than that of an incurable disease.

Having mastered the fundamentals of these techniques of communication, observation, logical analysis of data and decision making, the student can confidently proceed to the clinical clerkships and research laboratories and literally practice how to become a physician.

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Reprints: *A. J. Grindon, M.D.*
10406 Faulkner Ridge Circle
Columbia, Md. 21043

Prevention of Blindness Research Grants Offered

The National Society for the Prevention of Blindness will allocate a substantial portion of its research funds to provide prompt support to promising investigators who have not received extensive financial support for research in the past for conducting pilot projects with annual allocations no greater than $5,000 and not currently financed by other sources of research funds. Acceptable projects are those which may contribute to basic understanding of eye function and disease or that may improve diagnosis and treatment, or may be directed toward the prevention of an eye disease.

Grants are made for a one-year period. The maximum period of support for research is two years. Applications will be accepted any time during the year and awards will be made quarterly in March, June, September and December. Application forms and further information may be obtained by writing to the Committee on Basic and Clinical Research, National Society for the Prevention of Blindness, Inc., 79 Madison Ave., New York, N.Y. 10016.

ROBERT S. SMITH, M.D., *St. Louis*

Treatment Models in a Day Treatment Center

In November, 1969, in response to a growing awareness by this author and the staff of the Day Treatment Center at the Veterans Administration Hospital in St. Louis, Mo., a reevaluation of treatment models in the Center was inaugurated. This particular psychiatric outpatient facility has been operating since April of 1968. The Center is open five days a week, Monday through Friday, and operates a treatment program that begins at 8:30 AM and closes at 3:30 PM. The staffing consists of psychiatrist, who works halftime, in attendance each morning; a clinical psychologist; a registered nurse; an occupational therapist; and a receptionist.

The full-time staff is augmented by two to four psychology doctoral candidates. Also available to the Center is the support or consultation, or both from the Department of Physical Medicine; the section of Vocational Rehabilitation, both on station and through the state of Missouri; the Department of Social Services; and the Volunteer Services of Veterans Administration. The average daily attendance at the Center during the past several months has been 28.

The philosophy of the Center has always been to provide a facility for outpatient psychiatric treatment for the veteran who is moderately to severely disabled and who requires, from a therapeutic standpoint, the ways and means for personal reintegration and social and vocational rehabilitation. The model employed until November, 1969, was that of group orientation and process with individual psychotherapy being conducted only on a "prescription" basis. The approach used most frequently has been that of "problem solving" and reality testing and education.

In the early fall of 1969, as a result of a developing body of knowledge and experience, the staff began discussing, on an informal basis, the treatment models of "patient as sick" versus "the patient as responsible." This can be a particularly recurrent conflict in treatment planning in a Veterans Administration health-care-delivery unit such as this Center. The policy of "service connection" of veterans for mental illness can be and very often is seen by the veteran as a subsidy of his illness. If he has extended to him the opportunity of utilizing inpatient and outpatient psychiatric facilities, plus the monthly reception of a monetary compensation, it can be quite difficult for him to mobilize any motivation for psychological change. This is in addition to the additional propagandizing of "old-timers" that repeatedly informs him that to "get well" or adjust to a job places his compensation in the jeopardy of being reduced.

This topic could be and has been the theme of separate papers. It is presented here, in brief, only with the hope that the reader can appreciate the naunces of the day-to-day environment of this particular staff. Every psychiatric outpatient unit has, I am certain, its own idiosyncratic *phenomena* that may permit or even promote psychological and sociological regression on the part of its patients. This is one of ours. Also, this was the staff situation that promoted the discussion of models. Formal working sessions were instituted. By November, the present model was put into effect. It was decided to make use of both of the aforementioned models and divide the day's experience and activity.

The morning's activities involve two "talking" groups and two activity-oriented groups. These groups run concurrently and consecutively, and each member must "signup" for one of each at a General Assembly that begins the treatment day at 8:30 AM. For instance, a member may "signup" for the "Learning to Live Effectively," "talking" group that takes a rather structured, didactic, concrete, educational approach and then go into his Occupational Therapy group, for which he also has signed up for the remain-

As a result of a reevaluation of treatment models at the Day Treatment Center of the John J. Cochran Veterans Hospital, a lessening of apathy in the patients and an elevation of mood and their willingness to make a commitment to therapy have been observed by the staff. The author reports on the motivation for the change and the favorable results in regard to both patients and staff. Dr. Smith is Chief of the Hospital's Mental Hygiene Clinic.

der of the morning. There is no "policing" effort by the staff to insure the member's attendance. He is only made to understand that his decision of what he wants to involve himself in each morning is entirely up to him. It also is made quite clear to him, however, the staff does expect him to follow through.

The attitude of the staff is entirely different in regard to the afternoon sessions. These, again, are goup sessions, but assignment of each member to one of two groups is made by the staff. This assignment is reached through staff team discussion of the current verbal and nonverbal needs expressed by the member. It is made entirely and repeatedly explicit to each member that this is *his* "prescription" for the afternoon session. This is frequently actualized to the patient through the use of the VA form 10-2577d, "prescription form." The general design of these afternoon groups has grown out of the recognition of two major categories-of-need requirement. The young and less chronically disabled veteran displays needs for information and experience in what we have designated "intrapersonal + interpersonal" areas. The older veteran, who has been hospitalized many times in his 20 to 25 years of illness and who in many cases has become "institutionalized," cannot make good therapeutic use of the former approach, but displays less anxiety and considerable interest in an experiential reeducation activity-oriented group process, i.e., current events discussion, planning and executing a trip into the community, an Occupational Therapy project shared by group, etc.

Friday of each week in the afternoon session, there is a General Assembly. This serves many purposes, i.e., "closing" or "wrap-up" is the final period on Fridays when all the members and staff gather together. It presents the opportunity for the staff to help members summarize the work of the week. It also serves the function for the members of psychologically "turning-off" from the intense close interaction of the Center to the more sedate distant and frequently less involved transaction of their open-community milieu. Cognitive and affectual "transitions" also are encouraged at this assembly for we have found from experience that the weekend can be lonely and void for some of our members. Experience has further revealed to us that the sharing of reports of activities of each of the groups for the previous week is thoroughly enjoyed by all members.

At the time of this writing, we have no research data compiled to report. However, the evaluative scales have been built into the program and those data will be available in the future. I would like to report on the observations of both our staff and our members, realizing that the following, for the most part, will be subjective opinions. First and foremost is the staff observation of a considerable lessening of apathy and lack of interest. This is manifest in an elevation of mood, less absenteeism and a willingness to make a commitment to therapy. Secondly, there has been participation and verbal interaction by several of our most isolative members for the first time. The one group, which has been working with role-playing, has been seen to carry it over into interactions with staff and at times of recreation. Dosages of medication have been reduced and "sick call" visits have dropped off. Finally, about 75% of the regularly attending participants of the Center have volunteered positive statements regarding their new experience.

Although this article comprises a report on patient treatment models, I am eager to comment on staff reaction. It is a well-established fact that in an intensive, prolonged, patient contact treatment setting such as this, an interested, committed, contented staff is able to perform more effective therapy. This is, I am certain, part of the "magic" of our treatment model. This staff is happy and contented with the model and the results which are enhanced, again I am certain, because it developed out of their own dissatisfaction and desire to be more "therapeutic."

President's Message

The recent 1970 American Medical Association's Communication Institute was devoted to discussions relating to "Membership," "Leadership" and "Communications."

One of the most difficult obstacles to a unified, strong medical community is determining how to "tune in the membership receivers." Our leaders are often broadcasting, but the membership is not on the same wave length. How do we keep open the lines of communication so that an organization, such as our AMA, can better work from the bottom up?

The saddest note struck by one of the speakers during the entire institute was the fact that many "ears" in the academic fields should have been present at this meeting because they are not exposed sufficiently to the many good points of the AMA to be convinced that they should become active members. The academician's failure to recognize, in many cases, the importance of the AMA leads him to impart opinions to his young, impressionable charges, the medical students, which often turn them against organized medicine or discourage their investigation of and energetic participation in medical societies. This was cited as one of the reasons why there are 100,000 MDs who do not belong to the AMA today.

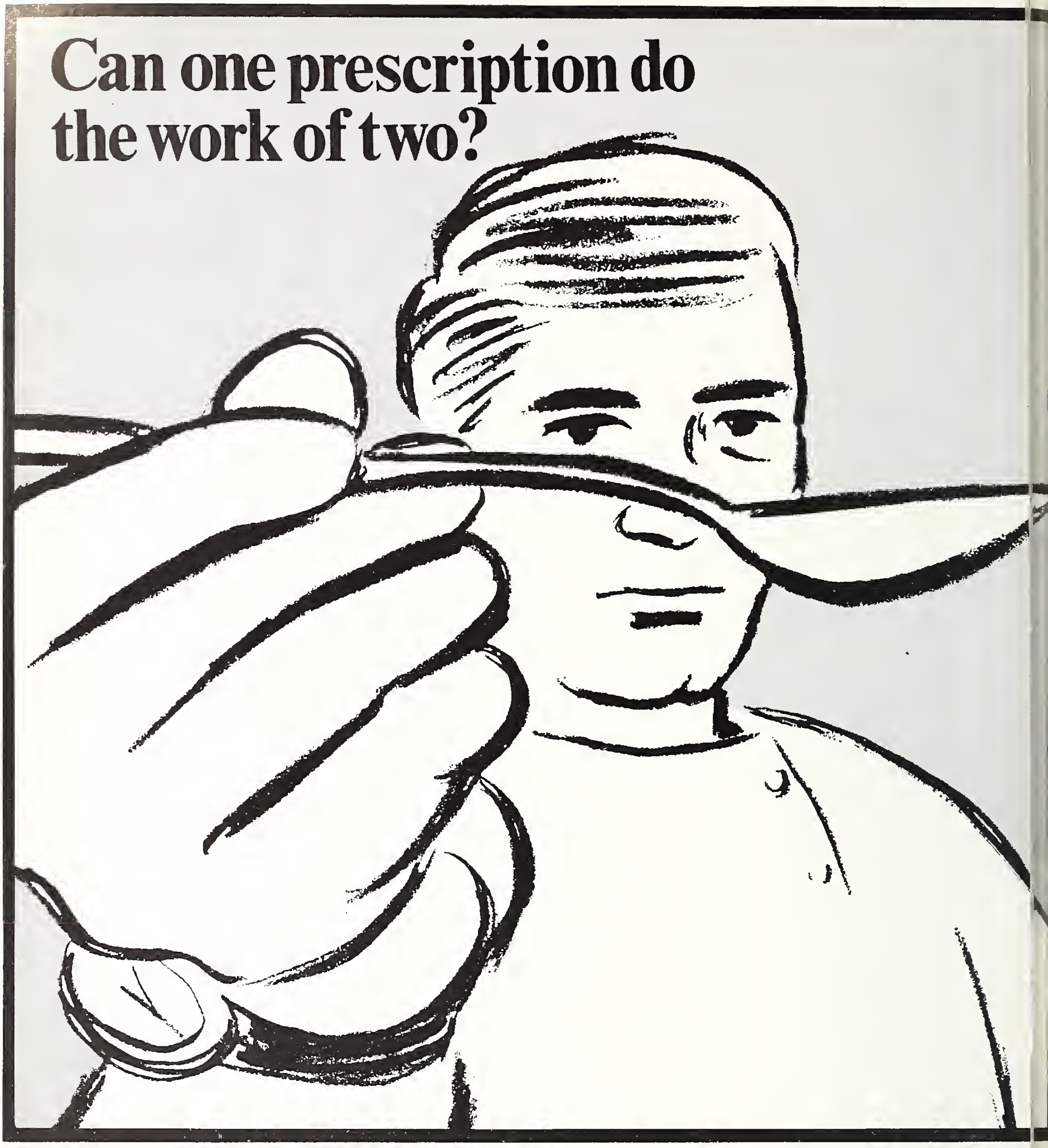
Joseph L. Fisher, M.D.

The county and state medical societies, together with the AMA, are the "Keepers of Our Professional Flame." They are the "Monitors of Our Profession." Only through organized medicine and, especially, the AMA, can we present a "united front," a "united approach" to our legislative problems. If the physicians of this country plus 100,000 dentists, plus 75,000 pharmacists, plus 50,000 veterinarians, plus 500,000 nurses would work together arm-in-arm at the ward and precinct levels, much assistance could be given in electing the type of legislators this country needs to preserve the freedoms we have known, the freedoms which have enabled our people to make this the greatest country in the history of man.

The legislative council of the AMA has been instrumental in the passage of more than 20 AMA-introduced pieces of legislation in the past year, all of which has helped to make the future of American Medicine (your freedom to practice as you wish) more secure for the present and near future. Drs. V. P. Siegal of Illinois, Donovan F. Ward of Iowa and W. O. La Motte of Minnesota, three members of the Council on Legislative Affairs, briefly reviewed these pieces of legislation and the good they have accomplished. They were enthusiastic about the reception the AMA-sponsored "Medicredit Plan" is receiving from the Administration, especially the first part which primarily deals with a method of providing medical care for the indigent under a comprehensive insurance program purchased by the government. Higher income groups would receive tax credits to defray part of the premium cost of comparable comprehensive insurance protection.

Our AMA representatives are holding steadfast to the "usual, customary and reasonable'" fee philosophy. It was the feeling of several of the speakers at the Communications Institute that if physicians and their friends support our congressional friends, the fundamental positions of our profession will receive greater recognition and can be preserved.

I believe our collective heads are stuck in the sand if we do not recognize (1) the importance of AMA membership, (2) the importance of AMPAC and state PACs, (3) upcoming political events, (4) medical legislation and (5) our individual responsibilities in these areas.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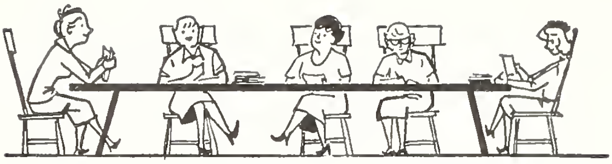
Woman's Auxiliary



When George Gershwin wrote "Summertime" and said that "the livin' is easy," he certainly had never heard of the Woman's Auxiliary to the Missouri State Medical Association.

We have had an exceptionally busy summer planning next year's projects and meetings and attending our National Convention in Chicago. All of our Missouri Delegates were present and made many friends for our state. Three of our Missourians are serving on the National Board and Committees. Mrs. Richard A. Sutter of St. Louis is Editor of *Direct Line*, our publication for leaders; Mrs. Herbert L. Mantz of Kansas City is National Parliamentarian; and Mrs. Jordan Kelling of Waverly is North Central Regional Legislation Chairman. These women are outstanding for the service they have given and are giving to the Auxiliary.

Mrs. William M. Walker
President

The next important Auxiliary meeting will be our State Fall Conference on October 28-29 at the Holiday Inn in Warrensburg. Unlike the MSMA, the Woman's Auxiliary does not have six or more meetings comparable to those of your Council. We must depend upon the Fall Conference, which corresponds to the MSMA's County Society Officers Conference, and our annual convention in the spring for opportunities to manage all of our business. As a result, the bulk of our work is done through correspondence and, much to our husbands' dismay, long distance phone calls.

All Auxiliary members in Missouri are invited to attend the Fall Conference. All state officers, standing committee chairmen, county presidents and presidents-elect, however, are *expected to attend*. So, please, Doctor, keep in mind the many phone calls this meeting can save and bring or send your wife to Warrensburg with a big smile and words of encouragement.

Our Conference theme will be "Prescription—Leadership." We will concentrate on learning how to be effective leaders in our organization and communities. Mrs. John M. Chenault, Immediate Past-President of the Woman's Auxiliary to the AMA, will be our featured speaker and honored guest along with other outstanding professionals who will share their trade secrets with us. The program promises to be exciting and stimulating and will be of interest and value to every member.

The County Auxiliaries of the Sixth District will be our hostesses with Mrs. Keith D. Jones of Warrensburg and Mrs. John Brazos of Sedalia serving as Conference Chairmen. Members of the Saline County Auxiliary are planning our banquet for Wednesday evening. We expect to have many honored guests from the MSMA, and we invite each of you to accompany your wife to the banquet for a delightful evening of good food, good talk, good entertainment and a good time.

We're the women who love you, we enjoy spending an evening like this with you and we're proud to work in the Woman's Auxiliary so that we can help you.

"Y'all come," as we say here in the Ozarks!

EDITORIALS

A MATTER OF SEMANTICS

The other day, I had an interesting conversation with a doctor who lives deep in our Ozark hills. Down there, he sees a wide spectrum of Anglo-Saxon types, which vary from the industrious, who are too few, to the indolent, who are too numerous. Pete Ellison is an outstanding example of the latter.

Pete is now about sixty. Having been somewhat balmy all of that time, it is too much to expect that he would improve with age, nor has he done so. If anything, he has become even worse so that he now keeps a finger on his pulse, in mortal fear that his heart will stop beating and he will die without knowing it. As if that is not enough, Pete even became so worried about himself that he insisted one of his neighbors sit up with him each night so that he would not pass on while he was asleep.

An odd thing is that the neighbors went along with this longer than anyone would believe. But, finally, they rebelled because Pete was getting more sleep than anybody. At this time, the neighbors insisted that he be packed off to our Missouri University Medical Center to see just how nutty he really was.

On his arrival there, Pete was taken over by a young, enthusiastic and thorough doctor. Several days were spent in probing Pete's physically sound carcass before it was concluded that he was quite healthy, but incurably and hopelessly lazy. At that point, Pete was returned home.

Not long afterward, the young doctor appeared in Pete's community to check up on him. He inquired of my friend, the local doctor, what might be done to convert Pete.

"Just what did you have in mind?" was asked.

"Well," said the young doctor, "everyone has some personality quirks. Mr. Ellison is not psychotic. He has a loss of drive and it is up to us to challenge him. I am going to recommend that he put out a large garden. I believe this would keep him busy enough to take his mind off of himself."

"Well," answered my friend, "just what do you expect him to raise in the winter?"

"Oh, then he can cut firewood," came the reply.

"And how do you intend to watch him while this is going on?" asked my friend.

"Me?" came the puzzled answer, "I live in Columbia. This is only a field trip. I have other patients. In fact, I change services next month."

"Son," said my friend, "you may change services, but I don't and Pete Ellison won't change at all. In the 20 years I have known him, the most strenuous thing Pete has done was to blow his nose, and he probably complained about that. He was born in the two-roomed house in which he lives and begat his six kids. He has never had anything, and he wouldn't know what to do with it if he had it. The commodities program gave him a turkey for Thanksgiving and a ham for Christmas, besides a regular monthly handout of good food. Some of it, such as Bulgar wheat, he can't recognize, so he feeds it to his chickens. In fact, Pete is living better than he ever lived. He may be peculiar but, in his crude way, he is smarter than you and me because he doesn't have any office overhead or monthly bills. and he fishes 25 days to my one."

"I'll tell you what to do, Son," said the doctor. "You just head on back to Columbia and write those papers out however you want. But, at the bottom, you quote me this way, 'We all agree that Pete Ellison is stupid, but he ain't dumb. The rest of us ain't stupid, but we are dumb. There is a great difference and the best way I know to express the difference is that we are all working for Pete, and he is enjoying it—every minute of it.' "

WILFRED E. WOOLDRIDGE, M.D.
Springfield

WHEN-YOU-WIND-YOUR-WATCH MIGHTN'T BE SOON ENOUGH

"Give as regularly as you wind your watch," urges the copyrighted slogan on a Church envelope for Sunday, Jan. 11, 1970. And the timepiece used to illustrate the injunction is of the pocket variety with a gold chain attached!

How long has it been since you saw such an antique?

Of course, one may smile at the slogan immediately and perhaps chide the minister with the reminder that present-day wrist watches are generally self-winding. But are you old enough to recall when a wrist watch on a man was a label of effeminacy?

Such gaudiness of then would have been equated with those eccentric beings of today who hide their masculinity behind finger rings, a chain around the neck, bell-bottom pants and gorgeous locks flowing to below the shoulder, curling at the tip.

Isn't it the inverted swing of the metronome?

Or could we be wrong? And have we humans been reversing the order of nature, where the most colorful bird in the air is the cock? Where the most spectacular animal is apt to be the male?

There was a time, a few centuries back, when men wore wigs over their balding heads, when their fingers were heavy with rings, when pants were knee-length and coats were colorful and where the finishing touch was apt to be a rapier suspended from the belt, its hilt aglitter with jewels. Monarchs wore ermine around the hem. And the law provided stiff penalties for the woman below the rank of nobility who wore a hat!

Wasn't that about the time, incidentally, when the doctor who lost a royal patient (whatever the disease and whatever the treatment) was guilty of malpractice?

And remember, there was no insurance then to cover his miscalculation. It's better to be alive today, with the inverted swing of the metronome.

The antique ticking timepiece should tell you: "It's later than you think."

Journal of the Medical Association of the State of Alabama

COMMENT . . .

Our Readers Write

Dear Doctor Finnegan:

Because of the deep and widespread interest in the problem of abortion, it is my hope that you might feel it is appropriate to print the complete report of Reference Committee H of the House of Delegates of the AMA, which deals with this subject. The entire report is actually quite short, but I think the philosophy that led to the "whereases" and the "resolves" would be of interest to the profession in this state.

I enclose a complete copy of this report for this purpose.

Sincerely yours,
Wendell G. Scott, M.D.

REPORT D OF THE BOARD OF TRUSTEES—ABORTION

Resolution 44—Therapeutic Abortion
Resolution 75—Reformation of Therapeutic Abortion Laws
Resolution 91—Abortion
Resolution 97—Reaffirmation of AMA Policy on Abortions
Resolution 103—Abortion

Report D of the Board of Trustees and Resolutions 44, 75, 91, 97 and 103 all deal with AMA policy on abortion and were considered together.

Your Reference Committee heard extensive testimony on this subject which evoked feelings of deep personal conviction indicative of the polarization of the medical profession on this controversial issue. Approximately half of those who presented testimony favored repeal of laws in the criminal codes of the various states which limit pregnancy termination to therapeutic indications. They favor placing abortion in the Medical Practice Act, so that the decision to interrupt pregnancy would rest solely with the woman and her physician.

The other half who testified discussed the morality of abortion and the obligation of physicians to preserve life. They favor the retention of the present AMA policy on abortion which permits pregnancy interruption only for therapeutic reasons.

Representatives of the AMA Council on Mental Health, the AMA Council on Environmental and Public Health, and the AMA Committee on Maternal and Child Care supported the intent of Report D of the Board of Trustees; representatives of the AMA Committee on Medicine and Religion opposed the intent of Report D. There was also much discussion, pro and con, on the effect of more liberal abortion laws on population stabilization. Mention was also made of the logistic and other problems which will occur in New York when that state's new abortion law becomes effective on July 1, 1970; the need for guidelines for the medical profession in such situations was stressed. All agreed that no physician should be required to perform an abortion if this conflicts with his moral views. There was a wide diversity of opinion regarding the right of one group to impose its code of morality upon the whole profession.

Your Reference Committee was impressed by the remarkable shift in testimony on abortion at this meeting as contrasted to the opposition to liberalization expressed by the testimony before a similar Reference Committee only six months ago (C-69). This shift in attitude has, no doubt, been influenced by the rapid changes in state law and by the judicial decisions which tend to make abortion more freely available. Your Reference Committee would agree with testimony presented that this trend will continue. We are not convinced, however, that the medical profession as a whole supports outright repeal of all restrictions on pregnancy interruption. On the other hand, we feel strongly that physicians who practice in jurisdictions without legal restrictions on abortion should be permitted to institute this medical procedure if it does not interfere with their own conscience and that of the patient and if it is felt to be in the best medical interest of the patient.

Accordingly, your Reference Committee suggests the following substitute resolution which embodies a number of the points made in Resolutions 75 and 91:

Whereas, Abortion, like any other medical procedure, should not be performed when contrary to the best interests of the patient since good medical practice requires due consideration for the patient's welfare and not mere acquiescence to the patient's demands; and

Whereas, The standards of sound clinical judgment, which, together with informed patient consent should be determinative according to the merits of each individual case; therefore be it

Resolved, That abortion is a medical procedure and should be performed only by a duly licensed physician and surgeon in an accredited hospital acting only in conformance with standards of good medical practice and after cosultation with two other physicians chosen for their professional competence and within the Medical Practice Act of his State; and be it further

Resolved, That no physician or other professional personnel shall be compelled to perform any act which violates his good medical judgment. Neither physician, hospital, nor hospital personnel shall be required to perform any act violative of personally-held moral principles. In these circumstances good medical practice requires only that the physician or other professional personnel withdraw from the case so long as the withdrawal is consistent with good medical practice; and be it further

Resolved, That the American Medical Association will consider no physician who adheres to the above and who is otherwise qualified, to be in violation of the policies of the AMA as long as his practice conforms to the applicable state or federal laws.

RECOMMENDATION:

Mr. Speaker, your Reference Committee recommends adoption of the foregoing substitute Resolution in lieu of Report D of the Board of Trustees and Resolutions 44, 75, 91, 97 and 103.

Mr. Speaker, this concludes the Report of Reerence Committee H. On behalf of the Committee, I should like to express appreciation to the many individuals who appeared before the Committee to give us a carefully prepared and thoughtful expression of their views.

George F. Brockman, M.D., Kentucky
Robert D. Moreton, M.D., Texas
Carlton E. Wertz, M.D., New York
Donald W. Worden, M.D., Idaho
Wendell G. Scott, M.D.,
Section on Radiology, *Chairman*

Continuing Education Coming Events

Sept 14-18	**Postgraduate Course on Bone and Joint Roentgenology** The Mallinckrodt Institute of Radiology Stouffer's Riverfront Inn, St. Louis
Sept. 22-25	**Emergency Care and Transportation of Sick and Injured Persons** American Academy of Orthopaedic Surgeons St. Louis Medical Society Building 3839 Lindell Blvd., St. Louis 63108
Sept. 23-26	**Computer Applications in Radiology—1970** Medical Center Auditorium University of Missouri, Columbia 65201
Oct. 2-3	**Third Annual Cardiovascular Symposium** Great Plains Heart Associations, St. Louis Heart Association, American Heart Association Council on Clinical Cardiology 4643 Lindell Blvd., St. Louis 12 AAGP Credit Hours
Oct. 22-24	**Annual Fall Clinical Conference** Kansas City Southwest Clinical Society 3036 Gillham Rd., Kansas City 64108

New Members

Jose M. Alzola, M.D., 10695 Bellefontaine Rd., St. Louis, has become a member of St. Louis County Medical Society. Dr. Alzola is a native of Cardenas, Cuba, received his preliminary education at the Institute de Sequnda Ensenanzade Matanges and his M.D. degree at the University of Havana in 1937. He specializes in psychiatry.

Glenn A. Barr, M.D., 4949 Rockhill Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Barr is a native of Blackwell, Okla., received his preliminary education at Kansas State College and his M.D. degree at the University of Kansas in 1965. He specializes in general surgery.

David W. Brown, M.D., Professional Bldg., Springfield, has become a member of Greene County Medical Society. Dr. Brown is a native of Bartlesville, Okla., received his preliminary education at Oklahoma University and his M.D. degree at the University of Oklahoma in 1964. He specializes in orthopedic surgery.

Robert W. Clothier, M.D., 1612 W. Truman Rd., Independence, has become a member of Jackson County Medical Society. Dr. Clothier is a native of Dow City, Iowa, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1965. He specializes in pediatrics.

James H. Deeken, M.D., 411 Nichols Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Deeken is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri in 1964. He specializes in dermatology.

Howard J. Ellfeldt, M.D., 4240 Blue Ridge Blvd., Kansas City, has become a member of Jackson County Medical Society. Dr. Ellfeldt is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1963. He specializes in orthopedic surgery.

Jack F. Glover, M.D., 1550 E. Sunshine, Springfield, has become a member of Greene County Medical Society. Dr. Glover is a native of Venus, Tex., received his preliminary education at North Texas State College and his M.D. degree at the University of Texas in 1957. He specializes in internal medicine.

Charles J. Haen, M.D., 1630 N. Jefferson, Springfield, has become a member of Greene County Medical Society. Dr. Haen is a native of Wichita, Kan., received his preliminary education at Rockhurst College and his M.D. degree at the University of Kansas in 1966. He is in general practice.

Edwin E. MacGee, M.D., 4320 Wornall Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. MacGee is a native of Chicago, Ill., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1965. He specializes in neurological surgery.

E. Scott McCord, M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. McCord is a native of Independence, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1965. He specializes in anesthesiology.

James W. Neumann, M.D., 2929 Baltimore, Kansas City, has become a member of Jackson County Medical Society. Dr. Neumann is a native of Fredonia, Kan., received his preliminary education at Kansas State University and his M.D. degree at the University of Kansas. He specializes in neurology.

Shafik F. Richany, M.D., 24th & Cherry, Kansas City, has become a member of Jackson County Medical Society. Dr. Richany is a native of Chouifat, Lebanon, received his preliminary education at the University of Wisconsin and his M.D. degree at the University of Wisconsin in 1957. He specializes in pathology.

Daniel L. Schlozman, M.D., 601 E. 63rd, Kansas City, has become a member of Jackson County Medical Society. Dr. Schlozman is a native of Kansas City, received his preliminary education at the University of Michigan and his M.D. degree at the University of Kansas in 1964. He specializes in internal medicine.

Jack D. Stephens, M.D., 751 E. 63rd, Kansas City, has become a member of Jackson County Medical Society. Dr. Stephens is a native of Hobbs, N. M., received his preliminary education at Kansas University and his M.D. degree at the University of Kansas in 1963. He specializes in anesthesiology.

Daniel B. Toubes, M.D., 8300 Troost Ave., Kansas City, has become a member of Jackson County Medical Society. Dr. Toubes is a native of Des Moines, Iowa, received his preliminary education at the University of Iowa and his M.D. degree at the University of Iowa in 1962. He specializes in internal medicine.

A. M. Yazdi, M.D., 325 N. Kirkwood Rd., St. Louis, has become a member of St. Louis County Medical Society. Dr. Yazdi is a native of Yazd, Iran, received his preliminary education at Khostrovia Mazkaz – Iranshahre, Yazd, Iran and his M.D. degree at Pahlavi University, Shiraz, Iran. He specializes in obstetrics and gynecology.

In Memoriam

Hashinger, Edward H., M.D., La Jolla, Calif., a graduate of Washington University, 1919; member of Jackson County Medical Society; age 79; died July 4, 1970.

Mabrey, John P., M.D., Plattsburg, a graduate of the University of Arkansas, 1952; member of Clinton County Medical Society; age 45; died July 11, 1970.

Bolgar, Bertalan B., M.D., Festus, a graduate of the University of Budapest, 1924; member of Jefferson County Medical Society; age 69; died July 16, 1970.

Copher, Glover H., M.D., St. Louis, a graduate of Washington University, 1918; member of St. Louis Medical Society; age 71; died July 27, 1970.

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Emergency Care Training Course to Be Held in St. Louis

A four-day training course on emergency care and transportation of sick and injured persons will be held in St. Louis on September 22-25 at the St. Louis Medical Society Building, 3839 Lindell Blvd.

Sponsored by the American Academy of Orthopaedic Surgeons, the course is designed for ambulance attendants, nurses, firemen, police officers, safety engineers, rescue squads and others who work with those requiring emergency attention.

Director of the comprehensive training course is Dr. Marshall B. Conrad, assistant professor of orthopaedic surgery, Washington University Medical School.

With faculty members from Washington University and St. Louis University Medical schools, the lectures and work practice sessions will be given in cooperation with the schools, St. Louis Medical Society, St. Louis Chapter of the American Red Cross and St. Louis Fire Department.

Physicians and others will speak and demonstrate on a wide variety of emergency medical situations. Traffic control at the accident scene, extrication from crushed autos, techniques of lifting and carrying, and patient comfort en route to the hospital are among the procedures taught in lectures and practice sessions.

For information and registration forms, those interested are invited to write to Dr. Marshall B. Conrad, 4960 Audubon Ave., St. Louis, Mo. 63110.

AMA 30th Congress on Occupational Health in Los Angeles

The American Medical Association's 30th Congress on Occupational Health will be held at the Century Plaza Hotel in Los Angeles, Calif. on Sept. 30-Oct. 1, 1970.

The two-day program will include symposiums on Standard Setting, Criteria and Guides, Programs in Occupational Health, Mental Health in Industry and Avocational Hazards.

The Annual Physician's Award of the President's Committee on Employment of the Handicapped will be presented during the Congress program at noon on Thursday. An Award Luncheon will follow the ceremony.

The Congress program is acceptable for 12½ elective hours by the American Academy of General Practice. There is no registration fee.

The Congress is presented by the AMA Council on Occupational Health of which Dr. Richard A. Sutter of St. Louis is a member.

St. Louis AGP Symposium Scheduled for October 4

The St. Louis Academy of General Practice and the Tuberculosis and Health Society of St. Louis will present a symposium on "Ecology and Lung Pathology" on October 4 at the Colony Motor Hotel in St. Louis.

The scientific program will begin at 10 AM and will continue until 3 PM with luncheon between the morning and afternoon sessions. The luncheon speaker will be Joseph P. Dolan, Ph.D. Northeast Missouri State College, whose talk will be entitled "Hope vs Reality—The 20th Century Game." Following the afternoon meeting, Mallinckrodt Chemical Company will sponsor a social hour.

Subjects to be discussed at the symposium include "Chemoprophylaxis in Tuberculosis," "Intermediate Care—Concern for the Future," "Principles of Managing Respiratory Failure," "Smoking and Health" and "Air Pollution and Emphysema."

The program is acceptable for five AAGP prescribed credit hours.

All physicians in Missouri are invited to attend and to bring their wives for a special program arranged for them. Registration will start at 9:30 AM. For reservations, write to the St. Louis Academy of General Practice, 3839 Lindell Blvd., St. Louis, Mo. 63108.

AMA Honors Indian Nurse Award Winner

Miss Audra Pambrun, R.N., a native of Browning, Mont., a frontier town near Glacier National Park, and a member of the Blackfeet Indian tribe, was honored by the American Medical Association in June.

A resolution extolling her "unselfish and unparalleled contributions in promoting health care and multiple health services among a forgotten people" was adopted unanimously by the AMA House of Delegates after it was introduced by the Montana Medical Association.

Before reading the resolution, Dr. Oscar A. Swenson, President of the Montana Medical Association, referred to Miss Pambrun as "a woman who is modest and kind to the humble and unfortunate."

Miss Pambrun was selected from 39 state finalists as America's most BE-INvolved Nurse and was so honored recently by the American Nurses Association and Schering Laboratories.

She and her 20 health aids for the Office of Economic Opportunity Community Action Program promote health and medical care among the 7,000 Blackfeet Indians on a 1,500,000-acre reservation in Montana.

The resolution said she "serves her Blackfeet people with dedication, loyalty and compassion in such programs as health education, immunization, eye screening, hearing, accident prevention and sanitation." She drives 2,000 miles a month to counsel and help Indians and non-Indians in their homes on the reservation.

In addition, Miss Pambrun, who was graduated from Columbus Hospital School of Nursing at Great Falls, the second of her tribe to wear the nursing cap, solicited support from community groups and was instrumental in establishing Montana's first suicide intervention crisis center in May, 1969, in a strong effort to reduce the suicide rate among young Blackfeet Indians, which is 47 per cent higher than the national rate.

After the resolution was adopted, Miss Pambrun was introduced before the House of Delegates and told members in her response that "priorities on the reservation's health front are mental health, accident prevention, maternal and child health services and geriatrics."

"As a child on the Blackfeet Indian reservation," she said, "I lived with the poverty, the discrimination, the discouragement and the despair so prevalent today among teenagers, whose suicide rate is devastating. Suicide is primarily among age groups 12 to 21 years with 15 to 17 being the critical group. Suicide among Indians of the past was never a problem. Time after time, I have heard a potential suicide relate that he can not cope with the conflict between his Indian culture and the so-called mainstream American culture that surrounds him."

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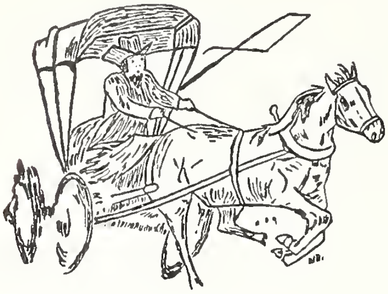

FORTY YEARS AGO

The House of Delegates at the Annual Session in Hannibal went to the North Central Missouri tier of counties in selecting the President-Elect for 1930-31 and, in Mexico, the county seat of Audrain County, found the man—Dr. John Frank Harrison.

About once each year, the question of compulsory vaccination in the St. Louis Public Schools is agitated by a certain coterie who want to have this health-saving provision abolished or changed in order to permit the admission of unvaccinated children to the schools. St. Louis has been remarkably free from epidemics of smallpox for a good many years, but the laxity in vaccination of persons outside of the public schools shows what it costs the city to care for cases of smallpox that do develop.

During the controversy about changing the rule, Dr. Max Starkloff, St. Louis Health Commissioner, produced statistics which showed that since 1900, there have been 6,505 cases of smallpox in St. Louis requiring the expenditure of $975,750 for their care and treatment. In this time, Dr. Starkloff said, there has been no case of smallpox in the public schools, but there were 480 cases in private schools where vaccination is not a compulsory preliminary to admission. The Board of Education declined to amend the rule.

TWENTY-FIVE YEARS AGO

William H. Olmsted, M.D., St. Louis, writes as follows:

"Prior to 1870, and probably for many thousands of years, bread had been made from wheat flour ground between millstones and consisting of a flour that contained most of the wheat berry, the outside branny layers, the germ and the starchy edosperm. . . . But, in 1870, there was discovered a process whereby the branny coats and germ could be ground to a very fine texture. This white flour became rapidly popular both in Europe and America. The importance of flour and bread in the nutrition of people in this country is apparent when one views the fact that 155 pounds of white flour are consumed per person per year and that flour and bread account for 25% of the calories in the average diet; the other two staple groups of food from which a large proportion of calories are obtained are meats, which are a source of 25%, and diary products, which are a source of 20%. From 1897 to 1914, Eijkman and later, Funk had shown that a diet of polished rice produced beriberi in birds and that the extract from rice bran could cure this condition. In the first edition of McCullom's book, he refers briefly to the fact that pigeons placed on a diet of bolted flour died sooner than pigeons which were subjected to starvation, and that those that were allowed to have the whole grain lived much longer. In 1942, it was known that as a result of patent milling, 75% of niacin, as well as the greater part of iron, were removed from the whole grain. From 1870 to 1920, white flour and bread made from it were only insignificant sources of the requirements for the B Vitamin group and for iron."

TEN YEARS AGO

The Kansas City Urological Society elected James F. L'Malley, M.D., president; C. Laurence Johnson, M.D., vice-president; and Milton B. Ozar, M.D., secretary-treasurer.—The Willard O. Thompson Memorial Award for distinguished contributions to geriatric medicine was presented to William B. Kountz, M.D., St. Louis, by the American Geriatrics Society.

Hospital nuns and former students recently honored Dr. LeRoy M. Sante at St. Mary's Hospital in St. Louis. He was presented a plaque in recognition of his 41 years of service to the hospital order.

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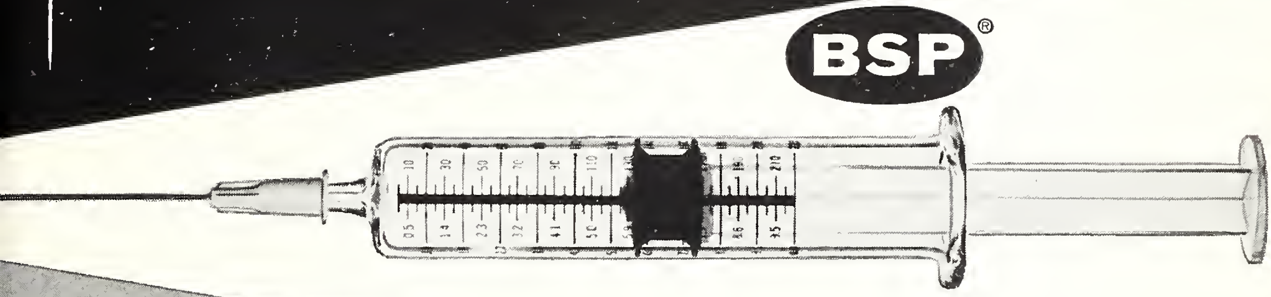

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AMA Realigns Its Top Administrative Structure

The American Medical Association has undergone a major realignment in its administrative structure as approved by the Board of Trustees.

Richard S. Wilbur, M.D., former assistant executive vice president, has been named to the new position of deputy executive vice president. Two assistant executive vice presidents have been appointed. They are William R. Barclay, M.D., former director of the Scientific Activities Division, and Joe D. Miller, former director of the Public Affairs Division.

The changes in staff were recommended to the Board of Trustees by Ernest B. Howard, M.D., executive vice president. Dr. Howard announced that the new administrative structure will enable staff to perform more effectively in both the scientific and the socioeconomic areas of Association affairs. Dr. Wilbur will share the responsibility for day-to-day management with Dr. Howard, and division directors will report to the assistant executive vice presidents.

The reorganization includes creation of a Center of Health Services Research and Development. Director of the Center will be Chris N. Theodore, former director of the Health Service Division. The Health Service Division will be known as the Division of Medical Practice in the new administrative structure. These changes are planned to strengthen staff capability in the health service area through the Division of Medical Practice while providing emphasis on research through the new Center.

Charles S. Lauer, former director of the Communications Division, has been named to the new position of General Sales Manager.

A number of new division directors have been named. They include Whalen M. Strobhar, former assistant director of the Public Affairs Division, who succeeds Miller as head of that division; Bernard P. Harrison, former director of the Legislative Department, who becomes director of the Division of Medical Practice; Frank D. Campion, public relations executive with the New York Stock Exchange and former bureau chief for LIFE magazine in Chicago and Los Angeles, who becomes director of the Communications Division; and David W. Powers, former director of the Field Services Department, who becomes director of the Management Services Division.

Among the new appointees, both Dr. Wilbur and Mr. Miller have made talks in Missouri this year, Dr. Wilbur at the 8th Councilor District meeting, and Mr. Miller at the County Society Officer's Conference in Jefferson City.

Consumer Group Opposes Inclusion of Chiropractors Under Medicare

The Consumer Federation of America at its annual meeting in Madison, Wisconsin, on August 29, adopted a resolution urging the Senate Finance Committee to reject the inclusion of chiropractic services under the Medicare, Medicaid and all other federally supported health programs at this time.

The Consumer Federation represents local, state and nation Consumer-oriented organizations throughout the nation and was organized for and dedicated to consumer action through legislation, information and education.

In the adopted resolution, the Consumer Federation pointed out that "in addition to increasing the health hazards to beneficiaries, the inclusion of chiropractic services would add substantially to the cost of the Medicare program."

MSMA News

Missouri Physicians Will Visit Russia

Twelve Missouri physicians including a husband-wife medical team and the wives of nine physicians will leave New York City on Wednesday, October 7, for a People-To-People Travel Program which will take them to Belgium, Sweden, the Soviet Union, Poland, Czechoslovakia and Germany.

Host for the tour will be David N. Kerr, M.D., St. Louis, who was President of the Missouri State Medical Association in 1968. He will be accompanied by Mrs. Kerr.

The purpose of the People-To-People Travel Program Mission is to give medical leaders in Missouri an opportunity to carry a message of good will to their occupational counterparts in both Western and Eastern Europe, including the Soviet Union.

Those on the tour will see and inspect typical medical clinics and hospitals, learn and compare methods and procedures and will also see historic sites in all lands which they visit.

The mission is privately sponsored and organized under the Goodwill People-To-People Travel Program.

The itinerary for the trip includes: Wednesday, October 7 - Arrive New York and connect with overnight jet flight to Europe.

October 8, 9, 10 in Brussels, Belgium.

October 11, 12, 13 in Stockholm, Sweden.

October 14, 15, 16 in Leningrad, Russia.

October 17, 18, 19 in Moscow, Russia.

October 20, 21 in Warsaw, Poland.

October 22, 23, 24 in Prague, Czechoslovakia.

October 25, 26, 27 in West Berlin, West Germany.

October 28 fly back to New York.

Those who will be on the tour in addition to Dr. and Mrs. Kerr include:

Edmund B. Alvis, M.D., and Mrs Alvis of St. Louis; Russell J. Crider, M.D., and Mrs. Crider of St. Charles; J. Will Fleming, M.D., and Mrs. Fleming of Moberly; Rae W. Froelich, M.D., and Mrs. Froelich of Lebanon; Jack Mullen, M.D., of Bonne Terre; Frederick O. Peterson, M.D., and his wife Carol F. (Williams) Peterson, M.D., of St. Louis; James A. Reid, M.D., and Mrs. Reid of Marshall; Glenn O. Turner, M.D., and Mrs. Turner of Springfield; Guy Magness, M.D., and Mrs. Magness, St. Louis; and Lysle Bach, M.D., and Mrs. Bach of Hannibal.

One Councilor District Meeting Set For October

Missouri State Medical Association President Joseph L. Fisher, M.D., St. Joseph, will be the guest speaker at one Councilor District meeting during the month of October.

On Wednesday night, October 21, Dr. Fisher will address those in attendance at the First Councilor District meeting at the Hotel Robidoux in St. Joseph. The Fourth District meeting planned for October 27 has been postponed until November 20.

Four Private Schools Ask For State Aid

Representatives of the two private medical schools and the two private osteopathic schools in Missouri appeared before the state Commission on Higher Education meeting in Jefferson City on Tuesday, September 15, to present a proposal which a spokesman said would help stabilize the present enrollment of 272 Missouri residents in the schools. They also sought support and incentive for funds to increase their enrollment of Missouri residents.

The meeting of the Commission was attended by Rev. Edward J. Drummond, S.J., vice president, Saint Louis University Medical Center; George E. Thoma, Jr., M.D., assistant vice president, Saint Louis University Medical Center; Mr. Benjamin Roth, assistant vice chancellor for medical affairs at Washington University and Morris Thompson, D.O., president of Kirksville College of Osteopathy and Surgery. Dr. Thompson also represented the Kansas City College of Osteopathy.

A legislative bill which would have provided state support for Missouri students attending the four schools was passed by the Missouri House during the 75th General Assembly session in 1969, but died in the Senate.

Special Feature

The Anatomy of Change

By

WALTER H. JOHNSON, JR.

Chicago

The following is a transcript of the address which was delivered by Mr. Johnson at the American Medical Association's Communications Institute in Chicago on Aug. 6, 1970. Mr. Johnson is Chairman of the Board of Myers-Infoplan International, Inc., the public relations organization recently engaged by the Board of Trustees of the AMA. He reveals thought-provoking facts and suggestions in his discussion of the understanding and management of change as he observes it in the world today.

As we look ahead into this decade of the '70's, I think the big challenge for the businessman and the professional—and I liken many of their problems as mutual problems—is the understanding and management of change. So, I am going to talk to you about change. I am going to talk to you from a background which gives me some ability to look at it philosophically.

Two years ago, I was president of a world-wide-professional association. During that time, I had the chore of traveling and talking, much as your elected officers do, to the professionals in the business. I put a research team on the job of studying what things were going to play the greatest influence in the next ten years of our society. They developed ten things for me. I have been updating them for two years. I have changed four of them and I have added an 11th. I want to share the results of that research—that study—with you today.

Change is the one thing in our lifetime which we see demonstrated in everything all around us, but people have various understandings of the origin of change. Some people attribute it to science and speak of the fact that 90% of all the scientists in the history of the world live now. Others talk about technology and point out the developments that have led us to this new world—its tensions, its problems and its great opportunities. I happen to believe that the real trigger of change was a social trigger and that it began in World War II when millions of people all over the world were torn from the security and isolation of their towns and villages or valleys and mountains and thrust into a whole new disturbing and conflicting world—a world in which women were emancipated into societies in which they had never before had a voice, a world in which the underprivileged saw and felt for the first time what the rest of the world was enjoying. From that trigger mechanism of World War II came the world that you and I know today. Counterpoint to these great social changes is society's enormous dedication to link itself with the past because its roots are in the past. This tendency is reinforced by all of our traditions. We cherish and learn from the arts, great music, history and literature—all the things that are familiar. The future is broad and unknown and for most people a very distressing thing. Probably the most important single consequence of this orientation towards the past is the failure to anticipate change and to move with it.

As businessmen or professional men, the world in which we live is our forum—our arena—our habitat. We have no way of walking away from its problems. We must live with them, adjust to them, contribute to them, manage them, mold them or do whatever we elect to do. My job today is to talk to you about these things which I think are the anatomy of change in our lifetime. There are 11 words.

The first is the word "government." The year 1966 will go down in history, when the business history of our time is written, as the year in which government discovered that the word "consumer" is synonymous with the word "voter." For the remainder of our practical life, we will live in a world in which political reality will give increasing importance to the consumer, whether he be patient or buyer. The role of government in relation to us will grow, will become more ponderous and will become more difficult.

Now, this, like many things in our society, is an import. It originated in Western Europe where today more than nine countries have cabinet or minister levels, consumer protection officials. It makes no difference that the consumer has evidenced no great zeal to be protected nor does it makes any difference that he has shown time and time again a complete indifference to some of the principles of protection which are being forced upon him. The political atmosphere will not change. **Government, for the rest of our life, will be a partner with the professions and with business and will oversee, look into and be over our shoulder in everything that we do.**

One of the unfortunate things about this is that business and the professions never anticipate action by government. They only react. When the problem comes up, they pour resources and manpower into seeking to divert or to reverse that which could have been directed or molded from the beginning with intelligent anticipation of change and with a real knowledge of what was going on in the world. **So the challenge for us there, for the rest of our lifetime, is to build a new dialogue with government and to talk to government about the American citizen, because the problems of the American citizen are too important to leave in the hands of the sociologist, the educator or the professional civil servant. This job must be done by our leadership in business and in the professions.**

The second of the problems on a worldwide basis is the problem of population, which, I guess, can best be characterized in a way that you know well. That is by saying that man has made much more progress in death control than he has in birth control. The development of new drugs and medical techniques has continuously increased man's life span so that today, each day, we add to the world 300,000 net new citizens. Three hundred thousand people born to the problem of food, clothing and shelter. In the undeveloped nations of the world, this is an enormous burden.

Some of the individual figures are startling and illuminating. For example, it is estimated that by the year 1980, Tokyo will have 20 million citizens. By 1986, India will have four cities with populations in excess of 36 million people each. Each of these situations will multiply by a thousand-fold the problems of government, public service, sewerage, police protection, education, medicine and public health.

By 1985, 86% of the world's population will be Asiatic, African or Latin American with the resulting qualitative difference on the whole world society.

There are today in the Republic of China more children below the age of 15 than the total population of the Soviet Union, with the resulting impact on world politics. Each night 75% of the world goes to bed hungry while 25% of the world has more food than it can dispose of. In our land, which thinks of itself as having problems in this regard, 79% of our people live on 1% of our land, so that our population problem is not numbers of people but the distribution of people.

One way to make this point dramatically is to use some words that I wish I had been bright enough to write. These words say, "As we stand here in affluent America, knee deep in our garbage and pollution, putting man on the moon, the music we hear in the background is not music but the empty rice bowls of the world beating in angry frustration on the floors of millions of mud huts."

The third of our great problems of our time is the word "youth." This, of course, is a great phenomenon. I am a personal authority on this subject. I have seven in my house and I maintain a continuing laboratory seven days a week, 365 days a year. I share with you all the frustrations, the joys and the pleasures. Unlike many people of our time, I think that this is not a cause for real alarm. We have in today's youth, as most people know, the most intelligent, intellectual and involved group of young people in our history. They are bored beyond understanding with the playpen system of education we have given them. They are affluent beyond reason with the resources and monies that we have made it possible for them to control. The combination of these two things has created in them an endless restlessness which projects them into all the affairs of our time. We have abdicated our communication with the young to a great degree. We walk away from the conflict and problems and we hope that someone else will solve them. We have never taken the principles and ideas that we have grown up with and believe in and engaged in real dialogue with the young and, you know, the idea of the young being influential is not new. Sam Colt patented the revolver at 21 and Graham Bell patented the telephone at 29. Mozart wrote his first composition at four, his first sonata at seven and his first symphony was completed at nine. Alexander the Great was King at 20 and conquered the world at 27. **The idea that the young are revolutionary, forceful and influential is not unique to our times.**

The next of the words that I would like to give you is the word "humanism." Webster defines humanism as a doctrine, attitude or way of life centered on human interests or values—a philosophy that asserts the dignity and worth of man and his capacity for self-realization. We are engaged in a second Renaissance in humanism in our country and all over the world today. Man is rebelling against a society which pools him, numbers him, lumps him, calls him a mass market, and he is seeking self-worth and self-identity in a radical and different way. He is seeking dignity whether he is a student or whether he is a rebellious intellectual in Russia or whether he is marching against the barricades in Paris or if he is a partisan in the Women's Liberation Movement or if she is in the Women's Liberation Movement. She is striking a blow on the new principle of humanism for the dignity of the human spirit, and that's an important consideration that influences most of the things that are going on in our lives.

Social sciences are playing a new and different role. The other day, I participated in a meeting at which four social scientists met with 12 marketers to talk about the impact on the world of business of the social sciences. One of these was a sociologist, and I thought he was the most interesting of the group. He said that in the world today, there are changes taking place that can be hinged to one thing—mankind's great crisis for the individual is a search for self-identity. **The young are seeking self-identity and worth for themselves; the middle-aged, represented by you and me, are seeking the identity of their peers—recognition for performance and achievement; and the elderly are seeking self-worth because they live in a society which is throwing away their wisdom, their judgment and their experience.** With this identity crisis, he said, comes the problem of rejection or challenge of our institutions, our education, our churches, our religions, our family life and all of the things that are taking place all around us. He said if there are two words that will mean the most for the world in relation to humanism in the next decade, they are the words "life style," and that everything that man does in his dress, in his music, in his actions will be keyed to his innovations in the area of life style.

Moving away from humanism, let's talk about **the next word which is "education."**

We have a strange and paradoxical situation in the world of education. We have created in our country the greatest educational system that civilized man has seen. We have financed it with the products of business success, the personal taxes of successful professional people, grants, endowments and direct gifts, and yet we have developed an educational system that is cannibalizing our society and cannibalizing us. It is an educational system that is turning out thousands of young men and women who look upon the world we have as a life without challenge, a job without fulfillment, a society without responsibility. We have walked away from this problem for too long.

In the first half of this century, there were three great power blocks in America. They were the power blocks of business, the power block of labor and the power block of government. In the last half of this century, there will be four great power blocks. They will be business, including the professions, government, labor and education. Only two of those power blocks consider themselves objective and honest. They are government and education. They have determined that, for the rest of our lifetime, they will decide what is best for us and they will be the judge of the society, the life and the conditions under which man will live. The strange marriage that may emerge from that is that we may find it absolutely necessary, in the next 50 years or even in the next five years, for business and the professions to find in labor the strongest possible ally for individual freedom and the dignity of man. That is a marriage which is beyond the comprehension of the man who struggled in the business world of the '30's, but it may be an absolute necessity within the decade of the '70's.

The next of our interesting words is "innovation." Here we live in a world of great pressures. There is an enormous pressure in the business community for new products and new developments, but there is an equal pressure in the world in which we live and operate and the world of the professional, the world of innovation for new ideas, new philosophies and new ways to express those things in which we believe. We have a young generation that understands nothing of what we term free enterprise. We have a young generation to which the word "communism" means something totally different from what it means to us. **We must have a more innovative way of communicating philosophies and ideas if we are to have a voice and an influence in the generation that is coming up with us.**

The next of our interesting words is the word "information." Somebody estimated that in the general world of professionalism, business, science or medicine, a man must read 70,000 books, pamphlets or articles a month to be adequately informed. None of us has that capacity, but we do have the capacity of harnessing the computer and electronic data processing to manage information in the decade ahead in a much more successful way. I visualize, for example, that in the decade that lies ahead of us, authors will no longer sell their books to publishers, but may, in fact, sell them to computers where their information will be instantly retrievable on demand for specific subjects. I realize the international transmission of medical and technical information on instant retrieval and the millisecond development of factual information will guide in diagnosis and decision making and management, and this will be one of the really great innovations in effect in our lifetime.

The next of our words is the word "communication." For more than 2,000 years of recorded history, man has been divided by nationalism, religion, patriotism, philosophy, emotion, by whatever thing that triggers him as an individual. The sophisticated methods of communication of our century are in the midst of making the most radical change that we have seen since man could communicate with paintings on the wall of a cave. Marshall McLuhan said that in the world of instant communication, the relationship of each to the other is changing. In any of the new forms, the message that comes through roughs up society in art, music, dress, television —the highly irritating new communications give the clue to their value. In today's world, everybody is involved with everybody and privacy is gone from our lifetime. We live in the global village of electronic communication. So whether you are in business, in medicine or any of the other professions, the fact of the matter is that you can no longer operate with the introspective orientation of the past. St. Matthew said, "Let your light so shine that man may see your good works." However, it is no longer practical in today's society to assume that light is being seen by everybody that it ought to reach. **What is necessary today is that you project and control the dissemination of the right information about yourselves and your business or your profession.**

You hear a lot in terms of today's business world about the use of the word "image." Actually, there are two words that are true. They are just as true in medicine as they are in the business community. The two words are identity and image. **Identity is what you know you are in fact, and image is what the public thinks you are. The successful practitioners in business or in the professions are those who pull those things together so that they represent a single picture.**

The unsuccessful practitioners are those who have great belief in themselves but who are thought of quite differently by the public. **In today's world, communication is not a luxury but an absolute necessity with respect to projecting a point of view, exercising reasonable influence and having your judgment and experience have a role in society.**

The next of the words is "competition." I used to think of this in terms of competition between the East and the West in the political sense, but I have altered my point of view substantially in the last year. I see it now as a desperate competition for two things—for ideas and for priorities. The growing dissatisfaction with the Viet Nam war arises from the fact that millions of Americans honestly believe that money could be better spent somewhere else. The competition for the mind of the young is a competition of philosophy. We must face within our responsibilities, as professionals or as businessmen, the fact that there is a desperate competition ideologically for the minds of people, and that competition is one in which we must be practitioners and combatants, if necessary, but very, very professionally oriented in the work that we do ourselves and through our trade associations.

The next of the words is "environment." I would like to define this for you as how we live, where we live and with what we live. A simple illustration of this point says that primitive man got up at dawn because he had no light and refreshed himself, worked in the fields until the heat of the day caused him to rest once more. He then worked until darkness came and went home and retired for the night. Now, strangely enough in our highly advanced electronic society, we still get up in the morning, have breakfast, work until lunch time, go back to work, come home and have dinner and go to bed. But, in so doing, we waste something like 63% of our schools, 45% of our bridges and highways, 30% of our roads. We will have in the rest of this century a more practical use and control of our environment than we have had to date. With all of this will come the enormous problems of the solution of the environmental issues of man—the issues of smog, of sewerage, of pollution, of conservation—that are occupying an enormous share of the public mind. They are occupying a greater share of the political mind and they are exerting a deeper influence on the decision-making of our time than almost anyone can possibly imagine. There have been brown-outs in New York because, for three sucessive years, the conservationists have prevented Edison from moving ahead on new plant construction which would give them the capacity to solve the brown-out problem. They, in turn, are blamed for the brown-out. **The whole problem of man's environment, the way he lives, how he lives and with what he lives, is one of the great problems of our time and one that we will live with in every element of our society.**

The last of our words is the word "social progress." Of course, this is two words, not one. But, here is the greatest single challenge to all of us. We have had great skill in developing exotic metals, cracking the petroleum molecule, developing minerals, materials, marketing of food products, expanding man's life cycle, reducing infant mortality, controlling disease. We have learned how to manufacture and make possible a better life, but we have not done well in giving that better life to a major segment of our society. That is a difficult problem for the businessman and the professional because, by nature, he is a pragmatist and he doesn't align himself with social problems as an active practitioner. However, the world is surrounding him now and he can no longer walk away from the social problems of our lifetime. For every step that we make in moving man forward against these objects of social progress, we will make a richer life for ourselves as well as for him.

So, these, I think, are the 11 important words of our lifetime. I would like to leave you with one thought that arises out of the social progress concept. For the child who is hungry, a crust of bread is not really satisfaction. For the man or woman who is cold, comfort is not a rag around their shoulders. For a shelterless family, a hut is not enough. What every man or woman cries for in the world, be he black or white or yellow or red or brown, is the priceless option in dignity of personal choice—the right to spend his pence or lira or cruzeiro for the plain or the fancy, the round or the square, the rye or the rice. That right cannot be bestowed on man by government, by a social planner or by the intellectual. That right can only be given to man by people who understand the principle of human dignity—by people who have been successful through the application of that principle and by people who have the management and intellectual capability to grasp reality and put their talents and their organizations' talents against it.

What I have said, in effect, is that change brings revolution and we must be the leaders of revolution and not the resisters of it. We must be the leaders of revolution in information, in communication, in world progress and the great problems of our time. We can't be responsive to the anatomy of change if we keep yearning perpetually, as a group, for the sterling qualities of our grandfathers. Business mourns the disappearance of the craftsman, but business killed craftsmanship with mass production to reduce costs. We decry obscenity and vulgarity, yet we assail to young and old alike with music and pictures and pornography. We decry the pressures for education, yet we demand education of those that we have pressured. We assail the antics of the young, and yet we hang our heads in humility and defeat at every tantrum that takes place by the inexperienced and the uneducated in the college communities of the nation. In a thousand ways, we bemoan the past, but it is gone and we are the ones who have driven it away—and we can't bring it back. **So, in this world of change, in this anatomy of tomorrow, we can't return to the habits and customs of yesterday, but we can anticipate, we can mold and we can use the things that are building change to build change in the direction in which our experience, our judgment and our influence can play a role.**

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American Medical Association to Hold 1970 Clinical Convention in Boston

Approximately 7,500 physicians, guests, medical students, residents, nurses, other allied health professionals and industrial and scientific exhibitors are expected to attend the 24th Clinical Convention of the American Medical Association on November 29-December 2 in Boston, Mass.

"This year's clinical convention reflects the growing needs of the busy practicing physician," declared Charles D. Bussey, M.D., Dallas, Tex., chairman of the AMA's Council on Scientific Assembly. "A scientific program has been prepared to serve and interest both the general practitioner and the specialist. Motion pictures, courses, lectures, round table discussions and scientific and industrial exhibits will combine to further their postgraduate and continuing education."

"In four days in Boston this fall, even the physician who believes he is practicing the best possible medicine is sure to learn many new facts," the program chairman said.

The program for the convention, under the supervision of Dr. Claude E. Welch of Boston, program chairman, has been planned by the Greater Boston medical community. This includes three medical schools, more than 30 major hospitals and some 9,000 physicians. Many of the panel moderators and program participants are Bostonians. The lecturers also will represent a cross-section of the entire United States. Speakers will come from more than two dozen different medical centers elsewhere in the nation.

The opening day, Sunday, Nov. 29, will be devoted to registration and to viewing and studying scientific and industrial exhibits at Boston's John B. Hynes Civic Auditorium. The study program will get down to intensive work early Monday morning, November 30, and continue without letup through Wednesday, December 2.

The working day Monday through Wednesday will begin at 7:30 AM with a special postgraduate course each morning, continuing until 8:50 AM. The courses will be on three separate themes: "Anesthesia and Immediate Postoperative Care," "Fluid and Electrolyte Balance" and "Treatment of Burns."

Beginning at 9 AM each day, physicians will be able to select from three general scientific sessions each morning period and three more each afternoon for a total of 18 half-day general sessions. Each will cover one aspect of medical care.

Study will continue through the lunch period with three luncheon round tables scheduled each day for three days at the Sheraton-Boston Hotel. The round tables will feature informal question-and-answer type study. Senior experts in each of the subject areas will be present to lead the discussion and to answer queries.

The program for the convention will be published in the October 19 issue of the *Journal of the American Medical Association.*

Simultaneously with the scientific program, the AMA's House of Delegates also will hold one of its two meetings each year.

Highlights of the scientific program will be channelled by closed-circuit television to the hotel rooms of physicians attending the convention in the early morning and evening hours. This will permit doctors to obtain summaries of reports at meetings they were unable to attend because of conflicting schedules.

The premier of a new film and the showing of two award-winning British films will highlight the medical motion picture schedule of more than 30 films during the three days.

Physicians planning to attend may register in advance both for the convention and for hotel reservations through registration forms that will be published in *JAMA, American Medical News* and other AMA publications beginning soon.

In conjunction with the convention, the 12th National Conference on the Medical Aspects of Sports will be held in Boston on Sunday, November 29. (See page 724 for further information.)

Also scheduled in conjunction with the Clinical Convention is the annual Medical Services Conference to be held on Saturday, November 28, in Boston under sponsorship of the AMA's Council on Medical Service. Theme of this meeting will be "New Methods of Delivery of Health Care."

Further information is available from the AMA Council on Medical Service, 535 N. Dearborn, Chicago, Ill. 60610.

RICHARD L. WIELER, J.D. ***and***
LESTER E. WOLCOTT, M.D., ***Columbia***

Medical-Legal Aspects of Disability Evaluation

Part II-Workmen's Compensation

Another large area of the law which offers compensation for "disability" is workmen's compensation. This is America's oldest social welfare program, born out of a conviction that the high cost of industrialization in terms of human suffering should be paid by industry itself and a realization that this could not be accomplished by tort law. Attempts by workers to recover from their employers for on-the-job injuries met with little success. The employer had three powerful defenses to an action for negligence; (1) the fellow servant rule, (2) assumption of risk and (3) contributory negligence. With this background, Workmen's Compensation statutes were developed which guaranteed, in varying degrees, medical payments, maintenance benefits and awards for permanent impairment from injuries arising out of and in the course of employment. The goal is to provide the injured worker with quick relief and compensation for reduced earning capacity regardless of fault. In return for this, the worker gives up his right to sue in tort and the possibility of recovering larger awards.

A knowledge of this historical background is necessary in order for the physician to understand his role in the current system. One should always keep in mind that Workmen's Compensation is an attempt to solve a serious problem through legal means. The existing statutes are the result of compromises between two large forces influencing state legislatures. Consequently, present faults and inequities in the statutes will be changed slowly and only when both sides see the wisdom of pursuing a different course. In the meantime, the statute is being administered as it was written and all concerned must learn to work within it, regardless of personal feelings.

Unfortunately, medical education programs do not prepare the physician for the role he must play in dealing with the injured or ill person protected by workmen's compensation insurance in view of the broad social requirements to satisfactorily deal with workmen's compensation patients. The inadequate preparation and the pressure of an economically structured system of care often influences the physician to take sides. One who is infrequently involved in workmen's compensation may feel that his only responsibility is to achieve the maximum benefit for his patient and he may stretch his concept of pathogenesis far beyond his usual scientific limit. The impersonal and sometimes hostile attitude of the insuranee carrier also may affect him adversely. On the other hand, the physician who receives frequent referrals from the employer or insurer may act as though his obligation to the patient is somehow modified by a loyalty to his economic source.

When consultation is sought by a former patient or a new one, either on his own initiative or by direction of an employer or insurer, the physician immediately assumes the responsibility not only for diagnosis and treatment, but, also, for making important judgments about cause and effect, degree and duration of disability and extent of or existence of permanent impairment after convalescence. In the proper fulfillment of these responsibilities, the physician must have special abilities and knowledge. He must be able to avoid advocacy, to make objective and scientific decisions and to be completely fair under the terms of a system and procedure with which he may not necessarily be sympathetic. He also must be able to state his findings clearly in writing and explain how they relate to specific causes. His opinions about causation, prognosis and disability must be supported by relevant facts and data. In other words, he must, at the same time, be scientific physician, dialectician and competent writer. The physician must at all times remember that his findings and conclusions are not deemed to be conclusive by the administrative agency which administers workmen's compensation or by the insurer. They are simply opinions which,

Since disability is basically a legal, rather than a medical concept, the goal of this informative paper is to aid the physician in understanding the legal theories and practices behind compensation for injuries in order to perform the role which the patient and the public demand of him in a legal proceeding. This detailed discussion of legal aspects as they are specifically related to the situation in Missouri should prove to be of value to the physician whose patient becomes involved in litigation. Mr. Wieler is an Assistant Attorney General, State of Missouri, and Dr. Wolcott is Professor and Chairman, Department of Physical Medicine and Rehabilitation, University of Missouri School of Medicine.

if well supported by facts and medical knowledge, are quite likely to be accepted. If disputes arise, however, the final decision concerning cause and effect, continued medical benefits and the degree of permanent disability will be made by the agency. A physician who makes conclusions which cannot be supported by "reasonable medical certainty" is just inviting dispute with its adverse consequences to his patient.

The operation of Missouri's Workmen's Compensation Law is contained in Chapter 287, Revised Statutes of Missouri (RSMo). It covers all injuries arising by accident out of and in the course of employment. In addition, compensation for occupational diseases in allowed. §287.067, RSMo 1959 defines occupational disease as a disease arising out of and in the course of employment. The disease must be one which can be directly attributed to the work being done, e.g., loss of hearing due to industrial noise and radiation disability are specifically included as occupational diseases.

The law requires every employer, whether covered by the law or not, to notify the Division of Workmen's Compensation within ten days after knowledge of an accident resulting in personal injury to an employee.

If the employer and the employee have elected to come under the terms of the statute, the employer shall provide such medical, surgical and hospital treatment, including nursing, ambulance and medicines, as may reasonably be required for the first 180 days after the injury or disability to cure and relieve from the effects of the injury and, thereafter, such additional similar treatment as the division or the commission by special order may determine to be necessary (§287.140, RSMo 1959). This section is the key to providing for physical restoration of most injured workers. The Workmen's Compensation Commission and the larger insurance companies alike agree that optimum medical care significantly reduces the degree of permanent disability.[4] Most insurance companies will insist on the best medical care and the commission may even order a change in the physician, surgeon, hospital or other requirement if reasonable grounds exist for believing that the life, health or recovery of the employee is involved. In addition, the employer may be required by the division or commission to furnish an injured employee with an artificial leg, foot, arm, hand or brace or artificial eye, whenever the Division or the Commission shall find that the injured employee may be partially or wholly relieved of the effects of a permanent injury by the use thereof. The commission attempts to oversee the management of injured workers through periodic medical reports as may be required. In serious injuries, the Division of Workmen's Compensation will inform the employee generally of his rights under the law and the Board of Rehabilitiation will attempt to contact the injured worker personally.

The Board of Rehabilitation was created for the purpose of restoring the injured person as soon as possible and as nearly as possible to a condition of self-support and maintenance as an able-bodied workman by physical rehabilitation. This board, as created by §287.141, RSMo 1959, is the finest feature of Missouri's Compensation Law. It is an attempt to utilize the most modern medical rehabilitative practices through quick administrative action. The crippling effects of many physical impairments can be lessened or eliminated if specialized treatment is given, and the results are even more spectacular if this treatment is started early. By entering the case as early as possible, the board can ensure comprehensive treatment and, at the same time, form an opinion as to the seriousness of the injury and determine the amount of rehabilitative care which will be necessary. If it becomes necessary in the board's view to extend rehabilitation past the normal 180 day medical treatment period, it can order the employer or the insurance company to pay more if they refuse to cooperate voluntarily. Medical treatment will not be terminated until the board is satisfied that nothing further can be done.

These activities on the part of the administrative agency should make the psychosocial management of the patient much easier. When the jeopardy of the worker can be magnified or lessened by the decision of an employer or insurer, the psychosocial management becomes equal in importance to his medical management and often more significant in determining results of treatment.

The initial concern of most, if not all, injured workers is recovery, and supervision and encouragement from the board, as well as his physician, helps keep the patient pointed in that direction. Adequate supervision is one manifestation to the worker that others are interested in his welfare. The early clarification of the extent of the injured worker's rights and benefits under the law will relieve tension and allay fears, thus enabling him to concentrate on recovery. Rehabilitation is encouraged when the worker discovers that his award for permanent disability will not be taken away because of these efforts. A knowledge of the disability system will tend to discourage the employee from relying on the false security of X dollars for X number of weeks.

In addition to medical benefits, workmen's compensation provides for maintenance benefits when there is a compensable injury. §287.160, RSMo 1959 provides that compensation shall be payable on the basis of two-thirds of the employee's average earnings with a limit of $57 per week. No compensation will be payable for the first three days or less of disability unless the disability lasts more than four weeks. The injured employee receives this for a healing period of 30 weeks. The healing period ends at any time during this period that the employee is able to return to any employment. If the healing period lasts more than 30 weeks, the employer shall continue paying during the period of such disability, but not for more than 400 weeks. However, the employer is entitled to credit against any permanent award for any amount paid over and above the 30-week healing period.

After the commission is satisfied that maximum healing has taken place, the claimant will receive a final award for any permanent injuries. §287.190, RSMo 1959 provides compensation for permanent *partial* disability and §287.200 provides compensation for permanent *total* disability. In this area, the Compensation Law of Missouri and most other states is weakest. The award for permanent disability is based on the idea that the residual defect has impaired the worker's earning capacity for which he must be compensated. Unfortunately, no foolproof method for determining the financial consequences of a physical impairment has ever been developed; therefore, the Missouri Statute on permanent partial disability is set up on a rating system based on loss of function. §287.190 contains 29 rated injuries with their respective payment rates in terms of weeks of compensation. Full payment for the loss of any rated member is given only for total loss, through severance or otherwise. A partial loss of function in a rated member causes the award to be reduced proportionately. Unscheduled injuries are to be compensated for in proportion to their relationship to the scheduled injuries, but no award should include compensation for more than 400 weeks.

The rating schedules, as a method of evaluating disability, are a monument to expediency. Awards based on the functional loss of a part of the body are arbitrary at best and in most cases have no relationship to loss of earning capacity. The large number of unscheduled injuries and injuries which result in only a partial impairment of a rated member encourage employers and insurance companies to fight for smaller awards, causing more hardship and delay for the injured worker. The rating schedules merely make it easier for the workmen's compensation referee to make a final award. A determination based on loss of function is simple compared with the task of estimating future economic loss. It enables the agency to process their cases more swiftly and to get compensation to the worker in a shorter time.

Space limitations preclude publication of "Medical-Legal Aspects of Disability Evaluation" in a single issue. Therefore, this article will appear in three segments. Part I was published in the September, 1970 issue of MISSOURI MEDICINE. Part III will be published in a subsequent issue.

The Bibliography also has been divided, but reference numbers are continuous from installment to installment.

The following outline will give the reader an overall view of this article:

Part I

Personal Injury Litigation

Part II

Workmen's Compensation

Part III

Social Security Administration, Disability Insurance, Vocational Rehabilitation Agency and Summary

The real tragedy lies in those cases in which the worker has suffered a permanent injury which has substantially impaired his ability to engage in gainful employment and, yet, is not serious enough to allow an award for permanent total disability. §287.020(8), RSMo 1959 defines total disability as the inability to return to *any* employment, not merely the inability to return to the employment in which the employee was engaged at the time of the accident. A Missouri Court has said that the employee need not be reduced to "selling apples on streetcorners," but it should be noted that the physical impairment must be quite severe in order to get compensation for permanent total disability under §287.200. The refusal to permit a deeper search into the subjective elements involved—age, education, skill, psychological outlook—results in many awards which do not adequately compensate.

Although the awards are measured in weeks of compensation, §287.530, RSMo 1959 empowers the Workmen's Compensation Agency to fix a lump sum award if it appears that the commutation would be for the best interests of the employee or would cause undue hardship or expense to either party. However, the statute specifies that commutation is a departure from the normal method of payment and is to be allowed only when it is clearly apparent that unusual circumstances warrant such a departure.

It has been argued that lump sum redemption hastens vocational rehabilitation for the seriously incapacitated worker because it provides a large sum which can be used as capital for a new business or to pay the expense of a massive rehabilitative effort. A recent Michigan study has shown that this is not often the case.[5] The study shows that a lump sum payment is mostly used to pay past bills and obligations, with the result that the worker has used up all his compensation for reduced earning capacity with no improvement in his job status. Many of the businesses which were established with lump sum payments failed because of the worker's inability to engage in entrepreneurial activity. They simply lacked the training or skill to run their own businesses successfully. This study casts additional doubt on the feasibility of lump sum redemption.

"Fortunately, I was able to apply first aid before you got here, Doctor!"

Any compromise settlement between the worker and the employer or insurance company is subject to the approval of the Agency under §287.390, RSMo 1959. The statute specifies that no agreement of settlement or compromise of any dispute or claim for compensation under the Compensation Law shall be approved which is not in accordance with the rights of the parties under the Act.

The foregoing discussion illustrates the power which the Statute vests in the Industrial Commission and the Division of Workmen's Compensation. Any dispute involving coverage, continued medical treatment or the nature and extent of permanent disability will be decided by the agency. The role of the physician in this process is spelled out in §287.210, RSMo 1959. The agency may appoint a duly qualified, impartial physician to examine the injured employee and to make a "complete medical report." This consists of the patient's history, complaints, details of the findings of any and all laboratory, x-ray and all other technical examinations, diagnosis, prognosis, nature of disability and an estimate of the percentage of permanent partial disability. It shall be admissible in evidence if all parties have reasonable access to the report. The employee is entitled to have his own physician present during the examination. However, any refusal to submit to the examination or any attempt to obstruct it will result in termination of his right to compensation during such period, unless done with good reason.

The testimony of any physician who treated or examined the injured employee is admissible in evidence in any proceeding for compensation if the "medical report" of the physician has been made available to all parties. "Medical report" is defined as the report of any physician made on any printed form authorized by the agency or any "complete medical report"; thus, it is legally possible for the treating physician to offer testimony without giving an estimate of the percentage of permanent partial disability.

If a physician is picked to be an impartial expert or feels compelled to give a percentage figure, the *American Medical Association Guides to the Evaluation of Permanent Impairment* can be of value. Although their shortcomings in the personal injury area have already been noted, the *Guides* can be helpful in the workmen's compensation area. They do represent the opinion of many eminent physicians regarding the relative value which should be given to the loss of function of the body, and the rating schedules in §287.190 are derived on the same basis. The physician should always be aware that the ultimate decision is made by the agency. Most physicians who are known as "good raters" achieved this reputation because of their ability to arrive at the same conclusion as the workmen's compensation referee.

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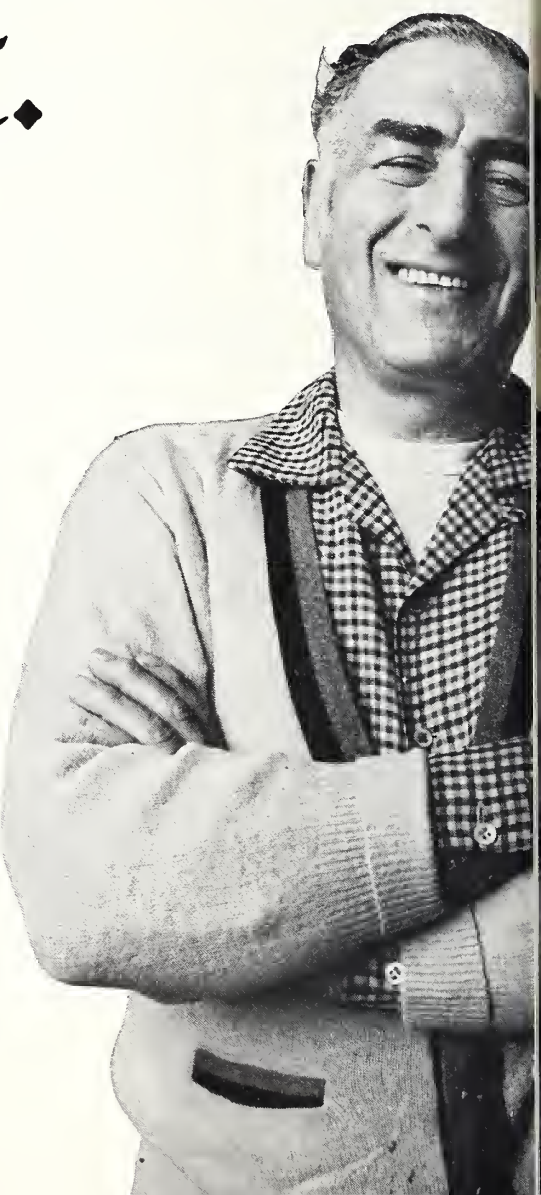

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WASHINGTON

The Nixon Administration is drafting legislation that would eliminate the reason for physicians forming professional corporations for federal income tax advantages.

The legislation would remove the tax discrimination against self-employed physicians and other professionals in the tax treatment of retirement savings.

K. Martin Worthy, chief counsel of the Internal Revenue Service, said the legislation probably will be submitted to Congress next year as an Administration measure. He said the Administration intends to "remove the present discrimination between tax treatment of qualified plans for employees and qualified plans adopted by self-employed persons."

The IRS official said that it was unfortunate that disparate tax treatment of corporate employees and professionals has led to the adoption of state laws permitting the formation of professional corporations.

"The potential, if not actual, erosion of the traditional stringent professional standards and liabilities on the part of those who form such organizations is, in my opinion, a highly undesirable by-product of this problem and its resolution to date," he told a meeting of lawyers. "The intervention of a legal entity between the doctor, lawyer or accountant and his client would not appear to serve any social or public purposes."

Worthy warned that recognition of a professional organization is recognized as a corporation for tax purposes did not necessarily mean that the organization and its employees would have a clear track as far as securing the tax benefits which are desired.

Worthy said an important consideration to be weighed by the professional person is that the new tax act provides for a 50% maximum tax rate, after a transition period, upon "earned income," which includes earnings from personal services.

"In view of this new tax ceiling, it is questionable whether a professional person would find it as important as it was previously to achieve the tax deferral available as an employee covered by a qualified pension of profit sharing plan," he said.

The Board on Medicine of the National Academy of Sciences urged wide use of three types of physicians' assistants as the quickest way to relieve the national shortage of doctors.

In a special report, the board called for the cooperation of the American Medical Association, the Association of American Medical Colleges and the government in developing physicians' assistants programs.

The AMA has been advocating use of physicians' assistants for some time. Dr. Walter C. Bornemeier, president of the AMA, recently said:

"We of the AMA believe the shortage (of physicians) can be dramatically relieved if the physician divests himself of functions which can be performed by assistants or associates. That relief would be provided, not in ten years, but as fast as assistants could be trained—no major legislation, no huge appropriations of money are required. We are certain the plan will result in better care for more people at a lower unit cost. Much of the training given to the assistants is, and would be in future programs, on-the-job instruction in the doctor's office.

"There is nothing revolutionary about this plan. Until 50 years ago, American doctors trained by working in the offices of established physicians. And even with the rise of university-affiliated medical colleges, we doctors continued to train the bulk of our nonprofessional nurses and office technicians."

The NAS board said that physicians' assistants could "extend the arms, legs and brains of the physician" by performing tasks that do not require the unique talents of the physician.

The three types of assistants recommended by the board were as follows:

1) *Physician's associate*—the most highly trained type; would be qualified to do work that involves some independent medical judgment. Under the physician's supervision, he could in some cases make a diagnosis and perform therapy, with the range of his responsibilities increasing as he develops new skills on the job.

2) *Specialized assistant*—would be highly skilled in one type of clinical specialty or procedure within a specialty (such as the operation of a renal dialysis unit); would receive most of his training from a physician specialist.

3) *Nonspecialized assistant*—would be to medicine what the practical nurse is to nursing; could receive much of his training on the job.

As the AMA has been doing, the Board cautioned against the premature enactment of licensing laws that would establish rigid job qualifications before the full potential usefulness of the assistants had been determined. The Board report recommended a system of registration that would permit physicians to employ assistants who had completed an approved program or otherwise established their qualifications.

Possession of a high school diploma should be an adequate prerequisite for training to become physician's assistants, according to the NAS Board. It suggested varying amounts of education, clinical experience and on-the-job training for the three types of assistants. For physician's associates, it recommended the equivalent of two years of professional-level classroom and clinical work. Instruction should cover the basic sciences underlying medical practice, and clinical training should be "of essentially the same type and degree as that given medical students." Medical corpsmen, about 30,000 of whom are discharged from the military services each year, and other medical workers who enter the training program should be allowed credit for the clinical knowledge they already have acquired.

AMA to Sponsor National Conference on Sports

The 12th National Conference on the Medical Aspects of Sports, sponsored by the American Medical Association under the auspices of its Committee on the Medical Aspects of Sports, will be held in Boston, Mass., at the Sheraton-Boston Hotel on Nov. 29, 1970. The Conference is held annually in conjunction with and on the first day of the Clinical Convention of the AMA.

As was true of the previous 11 Conferences, the 12th will cover a wide range of subjects of interest to those serving school and college athletic programs. Included will be forums and discussion sections relating to research in sports, aquatic sports, football rules and injuries, psychology in sports, girls in sports and emergency and public health aspects of sports.

At the Conference luncheon, Francis D. Moore, M.D., Moseley Professor of Surgery at Harvard Medical School, Surgeon-in-Chief at Peter Bent Bingham Hospital in Boston and eminent deep-water skipper, will discuss the topic, "Sailing Into Trouble." At the evening session, demonstrations on preventive and therapeutic taping and musculo-skeletal aspects of pre-participation examination will be staged.

The Conference is open to key nonmedical athletic personnel as well as interested physicians. For further information, address the Committee on the Medical Aspects of Sports, American Medical Association, 535 North Dearborn St., Chicago, Ill. 60610.

Physicians Invited to 'M.D. Day' at Missouri U.

The University of Missouri-Columbia Medical School and Extension Division, with the cooperation of the University of Colorado School of Medicine, will present the eleventh annual M.D. Day on October 23-24 at the Medical Center Auditorium.

The event, which provides an opportunity for practicing physicians to engage in an excellent scientific program, will open with registration at 8:30 a.m. on Friday. Dr. William B. Mayer, Dean of the M.U. School of Medicine, will welcome the physicians at 9 a.m. The scientific program will recess at 4:30 p.m.

On Saturday, each clinical department of the School of Medicine will hold "open house" for interested physicians attending M.D. Day. Participants may spend all morning in one department or may choose to visit two or more departments. The intent of these sessions will be communication concerning the departmental activities, plans and problems on the interface between the Medical Center and practicing physicians.

The Continuing Education Program of the University is fully accredited by the AMA. American Academy of General Practice credit in the amount of 7½ hours has been applied for.

M.D. also provides an occasion for the medical alumni (and "non-alums") and the faculty of the school of Medicine to get together. Planned opportunities for social interchange will include a cocktail hour and dinner on Friday. Entertainment will be provided by the Greene County Singing Doctors.

There will be a buffet luncheon for M.D. Day guests and families on Saturday and the Missouri-Colorado football game on Saturday afternoon.

Physicians who wish to secure additional information and enroll for M.D. are invited to write to the Executive Director, Continuing Medical Education, M-175 Medical Center, Columbia, Mo. 65201.

medical melange

Notes of interest from Here . . . . and There

Dr. Joseph C. Edwards, President of the St. Louis Medical Society, attended an International College of Cardiology meeting in London, England on September 12.—**Dr. C. W. Chastain**, Farmington, attended a meeting of the Governor's Task Force on Accessibility to Medical Care in Columbia recently.

Dr. H. F. Mars, Forsyth, celebrated his 80th birthday on August 2 at the home of his long-time friends, Mr. and Mrs. John S. Wilson. Dr. Mars has practiced medicine for 55 years.

Dr. David L. Garrison has become associated with the Thompson-Brumm-Knepper Clinic in St. Joseph as a specialist in the practice of obstetrics and gynecology. Dr. Garrison received his M.D. degree at the University of Illinois, interned at Denver General Hospital and completed his residency at Santa Clara Valley Medical Center at San Jose, Cal.

Dr. Robert Lee Cooper, II is now practicing medicine at the Warrensburg Medical Center where he will specialize in obstetrics-gynecology. Dr. Cooper received his M.D. degree at the University of Missouri and has completed his residency training at St. Luke's Hospital in Kansas City. He is the son of **Dr. R. Lee Cooper, Sr.** of Warrensburg.

Dr. Ned W. Smull, director and chairman of pediatrics at Children's Mercy Hospital in Kansas City, has been elected president of that city's new Health Resources Institute's board of directors. The Institute, a nonprofit agency that will provide administrative assistance to area health organizations, was established in August.

The **Nevada City Hospital** board has approved the appointment of **Dr. Nelson Carol Greenlund** to the hospital staff. Dr. Greenlund is a graduate of the University of Kansas School of Medicine and served his residency at the University of Missouri Medical Center. In 1966-1968, he served in the U. S. Air Force.

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WILLIAM MORIOKA, M.D. *and*
RAYMOND M. KELTNER, JR., M.D., *St. Louis*

Management of Gastric Fistula in the Absence of the Abdominal Wall

Case Report

THE MANAGEMENT of high output intestinal fistulas from the upper gastrointestinal tract is a challenging problem. A reported mortality of 29% for gastrocutaneous fistulas attest to the difficulty in obtaining satisfactory results with these lesions.[1] The cardinal principles in their management are control of the fistula drainage, treatment of local sepsis and, most important, maintenance of adequate nutrition. Support of the patient by the replacement of fluid and electrolyte loss alone is inadequate. An adequate caloric intake in the face of sepsis and the loss of the ability for oral alimentation must be achieved. In many cases, this implies early surgical closure of the fistula. With proper early management, reasonable success rates may be anticipated.

In the absence of the abdominal wall, operative management of enteric fistula defies the ingenuity of the surgeon. The following case report describes the management of such a fistula and a unique method devised for its control.

CASE REPORT

On May 18, 1968, a white man, 21 years of age, was admitted to the St. Louis City Hospital with an injury of the abdomen due to a shotgun blast at close range. On examination, the patient was in hypovolemic shock and presented a disruption of the abdominal wall and upper abdominal viscera. The patient was resuscitated with whole blood and balanced electrolyte solution and an emergency celiotomy was undertaken. At the time of operation, multiple perforations of stomach, transverse colon and small bowel were repaired. A single perforation of the abdominal aorta was closed. The abdominal wall was debrided and closed primarily. The early postoperative course was complicated by profound wound sepsis and dehiscence of the abdominal wound. Additional wound debridement

A report of an unusual case of gastric fistula in the absence of the abdominal wall is presented. Its complications and management are described and a unique method to obtain final closure is illustrated. At the time this patient was treated, Dr. Morioka was Chief Resident in Surgery, St. Louis University Unit, St. Louis City Hospital. He is now serving as a Major, Medical Corps, U. S. Army in Da Nang, South Vietnam. Dr. Keltner is an Assistant Professor of Surgery, St. Louis University, and Chief of the St. Louis University Surgical Service, St. Louis City Hospital.

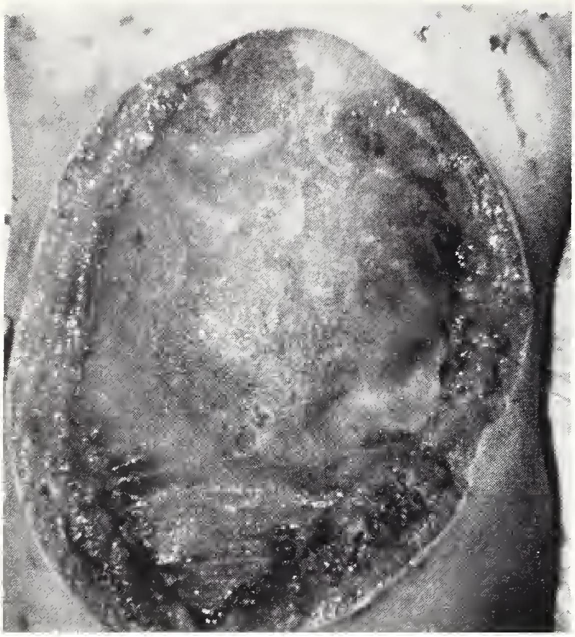

Fig. 1 Abdominal wound after debridement and closure with Marlex mesh.

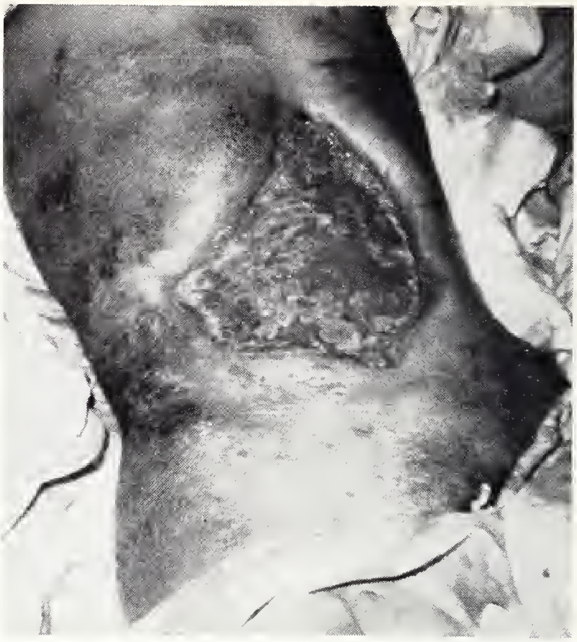

Fig. 2 Marked contraction of wounds after insertion of mesh. Skin stained by 0.5% silver nitrate used topically on wound.

and secondary closure was done. Three days following the secondary closure of the wound, massive upper gastrointestinal bleeding developed. Gastric mucosal ulceration and hemorrhage were identified at celiotomy, and truncal vagectomy, Heineke-Mikulicz pyloroplasty and Stamm gastrostomy were performed.

Following this procedure, a necrotizing fasciitis of the anterior abdominal wall developed and the patient's condition deteriorated. He became markedly toxic and hypotensive. Extensive debridement of the abdominal wall was necessary (Fig. 1). A large abdominal wall defect resulted and was closed with a sheet of Marlex mesh.[2] A heavy dressing soaked with 0.5% Neomycin was applied and changed frequently. One half percent aqueous silver nitrate also was used topically for some time. Granulation tissue appeared in the interstices of the Marlex mesh within a week despite contamination from drainage around the gastrostomy tube which had been placed following vagectomy and pyloroplasty. The mesh was covered by granulation tissue and contracted considerably, assisting in closure (Fig. 2). As the wound contracted and the split thickness skin graft healed, the Marlex mesh extruded to the surface of the wound, requiring debridement and additional skin grafting procedures.

The patient's condition was progressively improving when a gastric fistula developed beneath the left costal margin. Numerous attempts to control the massive fluid loss, including compression dressing, various plugs and tubes, were of no avail and the fistula actually increased in size. Fistula drainage was only moderately well controlled by suction drainage.

Upper gastrointestinal barium radiographs confirmed the gastric origin of the fistula. No distal obstruction was identified. The patient's course was one of progressive deterioration in spite of high caloric feedings given through a long intestinal tube placed in the jejunum. His nutritional status was maintained only by the infusion of fibrin hydrolysate and concentrated glucose solutions intravenously.[3, 4]

One attempt to control the fistula was made by simple closure, after releasing the periphery of the fistula from adhesions to surrounding organs. This closure was protected with a split thickness skin graft which failed to take and the fistula promptly recurred. Further mobilization of the stomach was not attempted at this time because of the danger of injuring adherent structures which were incased in the granulation tissue.

Anticipating probable failure of this closure, plans were made to mobilize a pedicle tube graft in three stages from the chest wall to cover the fistula (Fig. 3). A long pedicle flap from the anterior chest wall was fashioned with three delays (Fig. 4). In spite of high caloric intravenous feedings, the patient's condition deteriorated gradually because of fluid loss and uncontrolled local sepsis. Following development of an adequate pedicle tube, he was taken to the operating room where the stomach was mobilized and the fistula closed in two layers. The tube pedicle graft was detached distally and sutured to the surface of the stomach covering the suture line. A defect in the lesser sac

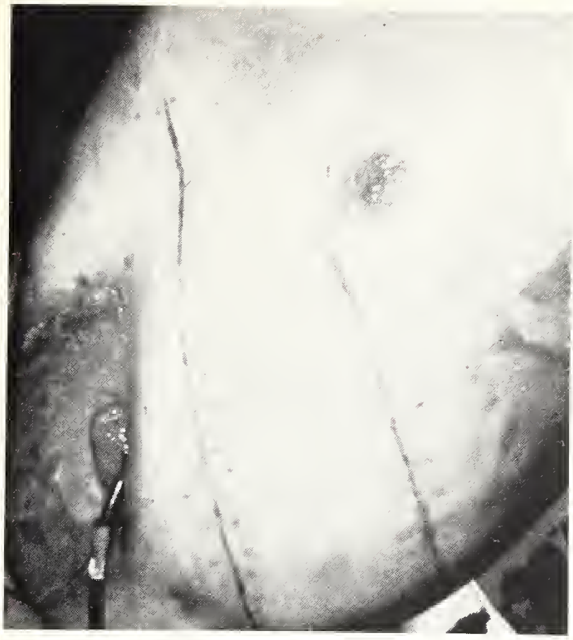

Fig. 3 First stage pedicle tube graft. Tube in gastric fistula.

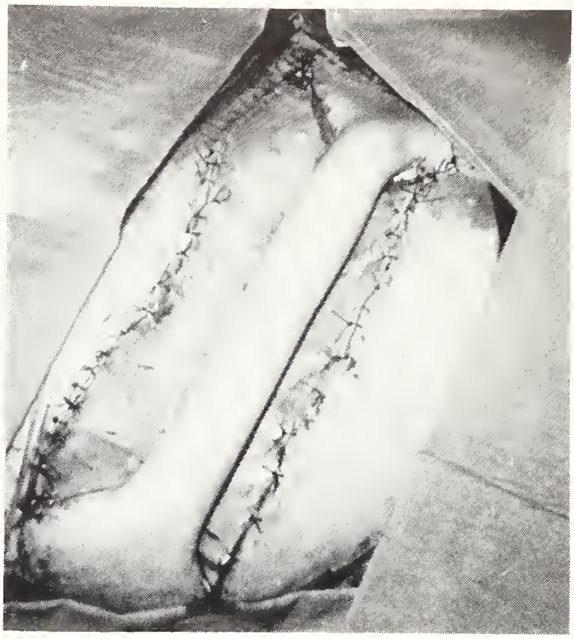

Fig. 4 Second stage pedicle tube graft.

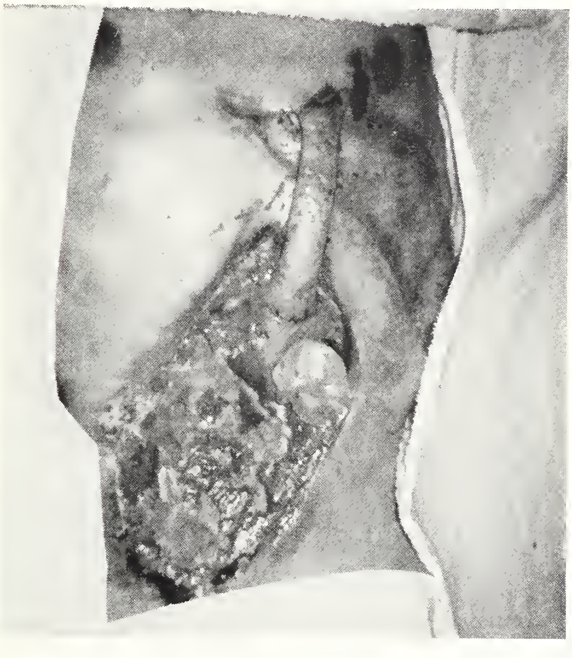

Fig. 5 Gastric fistula closed with a pedicle tube and lesser sac defect packed.

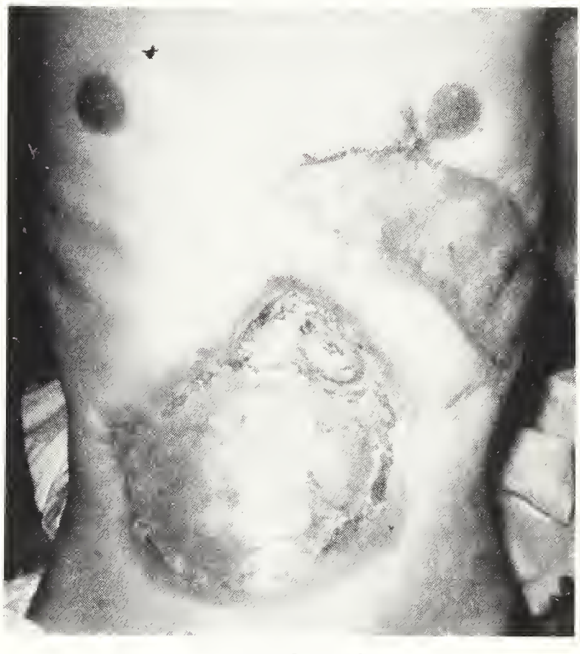

Fig. 6 Pedicle tube graft removed.

produced by mobilization of the stomach was obliterated with a gauze pack (Fig. 5). The postoperative course was uncomplicated and the tube graft healed to the anterior wall of the stomach. It was later transected and removed (Fig. 6).

The patient has been followed for 16 months since discharge and has remained well and is working regularly as a shipping clerk. Six months after closure of the wound, a neoperitoneal cavity could be demonstrated (Fig. 7).

Discussion

To our knowledge, this is a unique method for the control of enteric fistula. It appears to be a useful technique in desperate circumstances, as

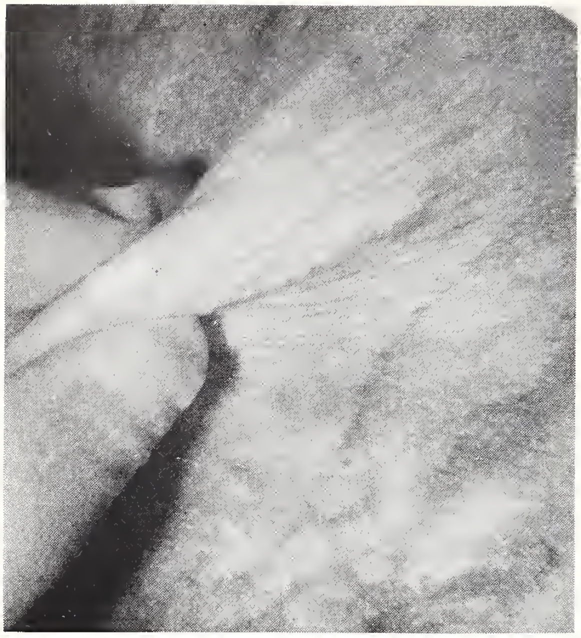

Fig. 7 Demonstration of neoperitoneal space 6 months after closure of abdominal wall defect.

exemplified by this case. Sufficient delay in fashioning the pedicle graft is necessary to provide adequate distal circulation in the final phase. Suture closure of the enteric fistula beneath the pedicle flap is likely to improve the chances of success. A more aggressive approach in this case was delayed by the presence of the huge abdominal wall defect and reluctance to initiate a dissection in a mass of adherent viscera covered by granulation tissue.

A report from the military service of limited experience in the closure of war wounds with Marlex mesh prompted the use of the material for the closure of this massive abdominal wound defect.[2] Our experience would dictate extreme caution in the use of this material in serious abdominal wall sepsis, such as the necrotizing fasciitis encountered in this case. In the light of the experience of this case, it is now our practice to use sylastic rubber sheet as a temporary prosthesis in such cases. The advantage of this material is that granulation tissues do not become incorporated in the prosthesis and it may be removed in the course of secondary procedures for the closure of the wound.

In retrospect, although this patient's nutritional status remained sufficiently good to achieve final healing, we now feel that a more aggressive approach to the surgical repair of the fistula should be taken in such cases and that the development of the pedicle flap should be initiated early in the course.

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The 22nd Annual Scientific Assembly of the Missouri Academy of General Practice will be held on October 9-11 in Kansas City at the Plaza Inn, the city's newest convention center.

The theme of this year's meeting will be the "MAGP Super Bowl." The scientific program will deal with the overall problem, "Influences of the Modern Family." Round table discussions will be included on the program.

Principal speakers will include Mr. Arne Larsen, head of the AMA Department of Medicine and Religion; David G. Hall, M.D., professor and chairman of the Department of Obstetrics and Gynecology, University of Missouri; Dr. Herb True, nationally-known research psychologist; and the deans of the University of Missouri-Columbia School of Medicine, University of Missouri-Kansas City and the University of Kansas Medical Center.

The meeting also will feature scientific exhibits and technical exhibits which will offer the newest information available on pharmaceutical equipment.

D. ELLIOTT O'REILLY, M.D., ***St. Louis***

Surgery in Rheumatoid Arthritis

SURGERY is but one aspect of the treatment of rheumatoid arthritis. Usually it is performed late in the disease after adequate medical and physiatric care, although early surgery may occasionally be beneficial. Active arthritis is no longer considered a contraindication.

The aims of treatment include (1) prevention of progression of the disease, (2) increase of function, (3) alleviation of pain, and (4) correction of deformity.

If swelling or synovial hypertrophy persist despite other measures, synovectomy can be a very valuable procedure in preventing progression. Many patients who are severely handicapped by loss of hand function or inability to walk can be helped functionally by surgery. Likewise, procedures like arthroplasties or arthrodeses can be used to relieve painful joints and, finally, there are many operations aimed at correction of deformity.

The surgical treatment of rheumatoid arthritis is not without problems. The patients and the procedures must be carefully selected for best results. Operations which may be very effective in other types of arthritis may produce poor results in rheumatoid arthritis because of the tendency to capsular calcification, bone atrophy and muscle weakness. Moreover, the systemic use of steroids leads to adrenal suppression with possible severe surgical shock.

This may occur even though the patient received a short course of steroid therapy many months before. The indiscriminate use of steroids is to be condemned. However, if the surgeon and anesthesiologist are aware of the steroid therapy, surgery can be safely carried out. Adequate preparation and treatment of the patient before and during the operation are essential, however.

Since rheumatoid arthritis is characterized by exacerbation and remission, the timing of surgery is important. If a synovectomy is done at the start of a remission, it might be concluded that the favorable result was produced by the surgery, whereas the procedure was actually unnecessary. As a general guideline, it is advisable to wait six months before performing a synovectomy. If motivation of the patient is poor, surgery is unlikely to be successful since the patient will not carry out the exercises and other activities essential to restore strength and motion. On the other hand, age does not generally serve as a factor in the decision regarding surgery.

In the lower extremity, the goals of surgery are weight bearing and ambulation with minimal pain. On the other hand, there is need in the upper extremity to preserve dexterity and strength of the hand and the ability of the arm and forearm to position the hand effectively. In addition, there may be a weight bearing function of the upper extremity if the patient has to use crutches.

SOFT TISSUE SURGERY

The chief soft tissue surgery in rheumatoid arthritis is synovectomy, which may involve either joint or tendon. It should be done early in order to prevent joint or tendon destruction, although it does not cure the basic disease.

Synovectomy can be done with relative ease on the knee, which is frequently swollen. Perhaps some of the extensive destruction of the hip could be prevented by synovectomy, although this is much more difficult since it must be dislocated for adequate exposure. However, in view of the hyperemia of rheumatoid arthritis, it would appear that the risk of the usual high rate of aseptic necrosis would be decreased.[1]

Synovectomy of the hand and wrist offers great benefit by permitting useful joint function to continue and by preventing rupture of the involved tendons. The thick boggy synovia in the wrist, in the extensor tendons and in the metacarpo-phalangeal joints cause rapid joint destruction and deformity and lead to early rupture of the tendons. The ulnar deviation and the swan neck deformity of the fingers are among the most conspicuous characteristics of this disease, but they can be prevented or corrected by synovectomy which arrests the destruction, the attenuation of the collateral ligaments and the erosion of the cartilage. As part of the operation, the extensor tendons are repositioned and the capsules are repaired, resulting in improved position of the fingers.[2]

ARTHROPLASTY

The problem of restoring function to damaged joints has been a challenge to the orthopedist

Treatment of rheumatoid arthritis is aimed at prevention of progression of the disease, increase of function, alleviation of pain and correction of deformity. If medical measures do not control the disease, surgery procedures, such as synovectomies, can play an important role. The author emphasizes, however, that surgery is not without problems and the patients and procedures must be carefully selected for best results. Dr. O'Reilly is Chairman and Associate Clinical Professor, Department of Orthopedic Surgery, St. Louis University School of Medicine. This paper was presented as a portion of the Arthritis Review on April 3, 1970 at the 112th Annual Session of the Missouri State Medical Society.

since the early days of the specialty. In 1826, J. Rhea Barton attempted to create an artificial joint, but little serious work was done until Dr. John B. Murphy, a general surgeon, used a pedunculated flap of fat and fascia as interposition material in 1905. This proved to be too bulky and, in 1909, Baer tried chromicized pig's bladder. Other procedures were attempted, but the results of the various methods were discouraging.[3] It was not until 1939 that a real breakthrough occurred when Dr. Smith-Petersen published his first paper on mold arthroplasty of the hip after 15 years of experimentation. His aim was the formation of a concentric head and acetabulum of hyaline cartilage by use of a mold.[4] He originally used glass, but because of breakage, he later tried Pyrex and Bakelite and, finally, Vitallium. Although he originally intended to remove the mold, this was rarely done. More recently, replacement arthroplasty has been developed by first using acrylic prostheses with the stems anchored in the lateral cortex and, later, Vitallium prostheses with intramedullary stems, which are commonly used today. The most recent investigation is on the use of silicone rubber replacement of joints.

The aim of arthroplasty is the restoration of maximum function with minimal pain. If other joints are involved, arthroplasty may be the only approach. In hip disease, cup arthroplasty offers the opportunity for improved motion without denying further surgery if this is unsuccessful. In addition, it can be done on younger individuals. The cup can be removed and hip fusion performed if necessary. In rheumatoid arthritis, there is tendency to calcification postoperatively about the joint, reducing the motion of the joint. Moreover, convalescense is long, requiring extended bed rest followed by crutch walking and exercises before full weight bearing is permitted. The patient must be strongly motivated in order to carry through this regime successfully. The cup is spherical so that motion can occur between the acetabulum and the cup, as well as between the cup and the head of the femur.[5]

Replacement prostheses for the femoral head were developed in the latter part of the 1940's. The Drs. Judet in Paris tried acrylic, but this did not hold up and the stems tended to break. They switched to steel, but again the stems failed. Later, intramedullary types of Vitallium, such as the Thompson and Austin Moore, were developed and are still in use. These are most satisfactory as treatment for fractures of the neck of the femur in elderly patients, but also are used in degenerative and rheumatoid arthritis. Like the cup, there is tendency to calcification around the prosthesis in rheumatoid arthritis, so that in this condition the results are least satisfactory. Because of atrophy of the bone, there is tendency for the prosthesis to settle and loosen. Since we are dealing with an inert material which may corrode after long contact with body fluids, it is not advisable to use a prosthesis in younger patients. The major advantage is early ambulation and exercise.

The most recent development in the hip is total hip replacement. These devices consist of femoral prosthesis and acetabular cup. The Charnley prosthesis uses a methyl methacrylate cement to hold the polyethylene acetabular prosthesis in place. The Ring prosthesis consists of a femoral prosthesis and an acetabular cup with a long thick screw which is inserted between the two tables of the ilium. These prostheses are still experimental and are undergoing intensive study. There are unanswered questions regarding the durability and toxicity of the methyl methacrylate cement and the long term wear of metal on metal with the possibility of loose metal fragments which could cause tissue damage. Likewise, indications have not been defined or are there as yet adequate evaluations of results.[6]

Recently, some prosthetic devices have been developed which offer help to the rheumatoid knee. Frequently, there is collapse of a tibial plateau, usually medially, which results in increasing bow leg deformity, instability and pain. MacIntosh designed a Vitallium plateau of various sizes and thicknesses which restores the alignment of the knee and permits resumption of ambulation with decreased pain. This is held in place by the ligaments and capsule of the knee.[7] It is especially valuable for depression of the periphery of the plateau. A prosthesis with an intramedullary stem has been developed at the Massachusetts General Hospital for replacement of severely involved femoral condyles. Total replacement of the knee joint has been attempted by Dr. Young[1] at the Mayo Clinic and others using a hinged joint, but this has not been overly successful because of metal chips and frequent ulceration through the skin.

Since finger dexterity is so important in maintaining self-care, it is very important to restore finger motion. Metal joint prostheses were tried, but like the knee, there is very little soft tissue overlying these joints so that ulceration is a common complication. In recent years, a silicone rubber has been developed which is as biologically inert as any material known and does not cause the bone absorption seen with metal. Its flexibility has been demonstrated by more than 20 million repetitions without evidence of breakdown. Dr. Swanson[8] at Ann Arbor has developed finger joint prostheses, as well as prostheses for the multangular major and other bones and joints. This material offers great promise for reconstructive surgery, especially for non-weight bearing joints.

ARTHRODESIS

The most reliable method for overcoming pain and deformity is joint fusion. This is especially applicable in the younger individual for whom the less reliable arthroplasty might not be advantageous. Arthrodesis is usually limited to patients who have isolated joint involvement.

There are many methods of hip arthrodesis, all entailing removal of any remaining articular cartilage and then fixation. The Fox nail consists of a nail passing through the neck, head and acetabulum with a nut on the inside of the pelvis providing compression. The remaining hip must be in good condition to permit abduction, and the lumbar spine must be essentially normal since flexion required for sitting and walking is transmitted from the hip to the lumbar area.

Again, arthrodesis of the knee permits greater physical activity, but the other joints, such as the hips, must be essentially normal. Occasionally, bilateral knee arthrodesis may be indicated, but this is not as disabling as might be expected and these patients can walk with a satisfactory gait.[1]

The fingers and hand also are common sites for arthrodesis. This is often done for painful deformity in conjunction with arthroplasty to restore useful function to the hand.

OSTEOTOMY

Osteotomy is occasionally used in inactive rheumatoid arthritis. In the hip with painful arthritis, but essentially normal head, subtrochanteric osteotomy may reduce pain and increase function. This frequently results in increase in the joint space indicating some regeneration of articular cartilage.

Gradually increasing varus or occasionally valgus is a disabling painful deformity of the knee and result of degeneration of the tibial plateau. If peripheral, then plateau prosthesis is used. If the collapse is central, an osteotomy through the tibial condyles will restore alignment and relieve pain.

Marked fixed flexion of the spine, either neck or trunk, is an occasional, very distressing complication of rheumatoid spondylitis which results in loss of horizon and impaired vital capacity. Osteotomy of the cervical or lumbar spine can correct this deformity, although this is a rather uncommon, heroic procedure.[9]

MISCELLANEOUS

Because of its many joints, the foot is readily involved in generalized rheumatoid arthritis usually starting with painful joint swelling and progressing to disabling deformities such as hallux valgus, dislocation of the metatarso-phalangeal joints and depression of the metatarsal heads. Every effort should be made to prevent and correct deformities by conservative methods, such as special corrective shoes. If ambulation becomes difficult, however, then surgical correction can be done. Hallux valgus is corrected by the usual Keller procedure—resection of the proximal portion of the proximal phalanx of the big toe. The depression of the metatarsal heads and the dislocations are treated by excisional arthroplasties of these joints.

FOLLOW-UP

The postoperative care of the rheumatoid arthritic is as important as the surgery. Surgery should not be done if the patient is not motivated and cooperative. Weak muscles must be strengthened, and motion must be restored to movable joints. Strong muscles are needed to protect damaged joints and to decrease pain. This is especially true after an arthroplasty because of the weakness around the joint caused by the disease. The patient who can carry out an adequate exercise program by himself is rarely seen. He must have close supervision by a sympathetic, experienced therapist, starting early in the postoperative period with gentle active exercises at the bedside and gradually progressing to more strenuous exercises and ambulation. Muscle fatigue and joint irritation must be avoided.

CONCLUSION

In conclusion, the aim of treatment in rheumatoid arthritis is prevention of progression of the disease, increase of function, alleviation of pain and correction of deformity. If medical measures are not controlling the disease, surgery can play an important role. Some procedures, such as synovectomies, should be done early before extensive joint destruction has occurred. Moreover, active disease is not a contraindication to surgery. However, the patient must be well motivated and cooperative.

Arthroplasties using cups, metal prostheses and silicone rubber are helpful in restoring function. In many instances, joint fusion provides a stable, painless joint which permits the patient to return to useful life. In other cases, disabling deformities can be corrected by osteotomy.

However, surgery is only one part of the total treatment of rheumatoid arthritis and often the results of surgery are disappointing.

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The surface of blood platelets is rich in sugars which may be involved in the immunological and functional characteristics of these cells and in the first steps in blood clotting. In a paper published in the journal, *Biochemistry* (September 15) Drs. G. A. Jamieson and D. S. Pepper of the Blood Research Laboratory of the American Red Cross, report on the isolation of a highly purified fragment, or glycopeptide, from the platelet outer surface. This glycopeptide has a molecular weight of 120,000 which is more than ten times larger than the only other known glycopeptide which has been isolated in this fashion, namely, the glycopeptide of red blood cells which contains their MN activity. They have coined the term *macroglycopeptide* for structures of this type.

Experiments are in progress to determine the biological function of this material, but preliminary results suggest that it may be part of one of the membrane antigens of the human platelet. Other results being derived from studies on blood lymphocytes, which are the primary cells involved in transplantation and other immunological reactions, suggest that macroglycopeptides may be characteristic of many different cell types.

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Computer and Thermoluminescent Dosimetry Studies in the Moving Strip

OUR INTEREST in the dosimetry of the moving strip was stimulated by the difference between the daily dose called for in two references on the subject.[1,2]

Both references use a graph such as that in Fig. 1 in which the depth dose at the midline is plotted on the ordinate as a percentage of the daily dose and the anteroposterior (AP) thickness of the patient is plotted on the abcissa.

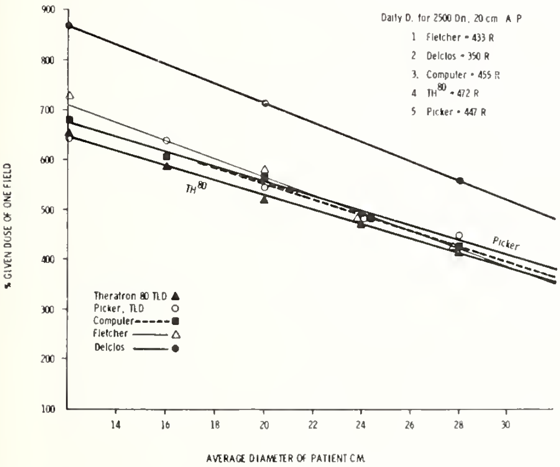

Fig. 1 **The total dose at midline varies with the diameter of the patient.**

Investigation disclosed that the difference between the two references indicated above was due to the characteristics of the two different cobalt 60 units being used. Since the penumbra sees each point eight times, it is unusually important in determining depth dose. We then decided to determine the parameters of our own units, a Theratron 80 and a Picker C-3000.

The majority of our readings were made with thermoluminescent dosimeters in a water tank, verified with a Victoreen dosimeter in a pressed wood phantom and a Siemens waterproof chamber in a water tank. The chief advantage of the thermoluminescent (TLD) dosimeters was economy of time. We wished to duplicate the physical parameters as accurately as possible so we moved the field of the machine over the water phantom just as in an actual treatment sequence. Since this somtimes required 12 or more fields, it was a time consuming procedure. Moreover, with the Siemens or Victoreen, we could find the dose at only one depth at a time, even though we were interested in the range of 12 cm to 30 cm AP thickness. Many such readings would be required with the Siemens or Victoreen dosimeters. Fortunately, all could be obtained in one treatment sequence with small TLD dosimeters.

The method used was to attach the dosimeters, which were 12 mm long and 3 mm in diameter, to a plastic ruler at distances of 2 cm apart. (Test runs were made with the dosimeters even closer to check on differential absorption by the dosimeters themselves and this was found to be negligible.) The ruler was then hung in the water phantom vertically and all the different depths were exposed as the moving strip passed over the dosimeters.

This was done at least three times for each machine. The results were then plotted as in Fig. 1. The reader will note that both the Picker C-3000 and the Theratron 80 are in the same general range as the graph published in Reference # 2.

A control data 160 computer was next brought into play. It was programmed by Dr. R. Perez-Tamayo[3] and is in routine use in treatment plan-

Whole abdominal irradiation with the moving strip technique requires a different approach in dosimetry than that needed for the conventional fixed field technique. This paper briefly covers the reason for the considerable difference in depth dose delivered in two earlier references on the subject and reports the results of computer and TLD studies of different variations of the moving strip. Mr. Wallace is radiological physicist and radiation safety officer at Ellis Fischel State Cancer Hospital.

ning at the Ellis Fischel State Hospital. The moving strip field parameters were given the computer for various AP diameters. The computer depth dose information also is plotted in Fig. 1 and falls between the Picker C-3000 and Th-80 data found with TLD.

The agreement between the computer and other empirical data made us confident that we could use it to investigate other aspects of the moving strip and feel reasonably confident of the dose parameters involved. Some of the aspects investigated are as follows:

Width of the Strips. We felt that it might sometimes be desirable to use strips of greater width than the conventional 2.5 cm, so we investigated the depth dose up to strips of 4 cm width. We found that the average depth dose, expressed as a percentage of daily given dose, varied only from 570% for a 2.5 cm strip to 580% for a 4 cm strip. These results were for a 20 cm AP model using the conventional maximum of four strips combined into a single field at the greatest field size.

Length of the Strips. It was found that the length of the strips decreased the percentage depth dose only very slowly as the length shortened from 24 to 14 cm. Thereafter, the depth dose decreased more rapidly with decrease in strip length. The relationship between strip length and depth dose as a percentage of daily given dose is shown in Fig. 2.

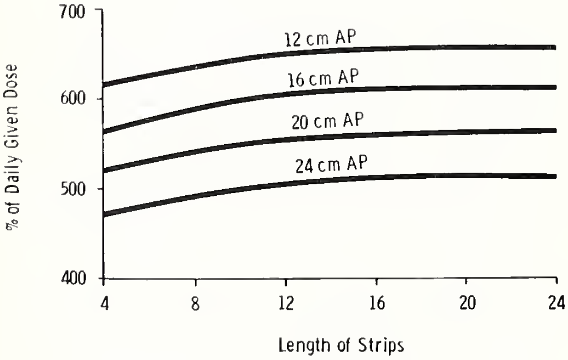

Fig. 2 The length of the strip has little effect on depth dose after a length of 12 cm is reached.

The Order of Exposures for the Strips. The reader should keep in mind that whatever is done on the anterior of the patient one day is usually duplicated on the posterior the next day. For simplicity, however, we shall discuss the order of the exposure of the strips for one side only. Hence, days refers to days of treatment for one surface, even though intervening days will have been used for treating the other surface.

The conventional technique is to treat the first strip on the first day. On the second day, strips one and two are treated. On the third day, strips one, two and three are treated. On the fifth day, strips two, three, four and five are treated and strip one has been dropped. The treatment then proceeds down the trunk of the patient with one strip being dropped and one added each day. We studied the dosimetry with several variations of this order of exposure. Fig. 3 shows some of the orders of exposure.

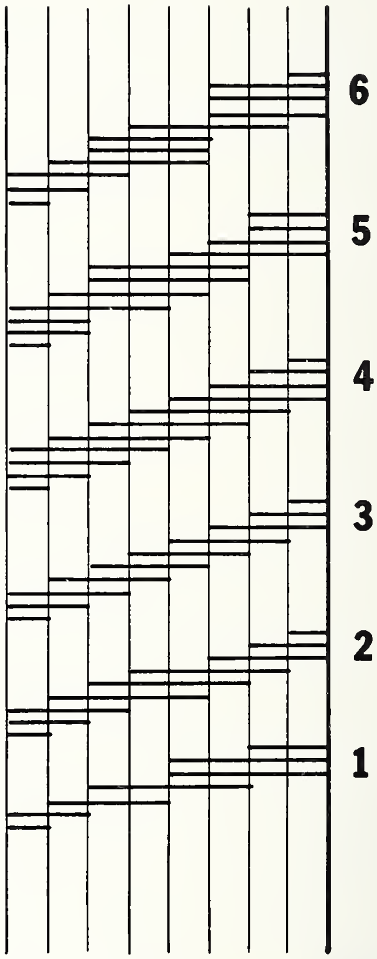

Fig. 3 Various orders of treatment of the strips.

The horizontal lines represent fields covered daily. The veritcal lines represent the strips in which the overall area has been divided.

Order # 4 is the conventional order of exposure. Note that Orders # 5 and # 6 tend to have more fields ending and beginning on the same point. This tends to produce hot spots with some of these points receiving as much as 10% more than the average midline dose and, hence, should be avoided when possible.

The Number of Exposures per Strip. In certain situations at Ellis Fischel State Hospital, it has been found desirable to progress more rapidly along the trunk than would be possible when using the conventional number of exposures per strip. One can then use a three-exposure-per-strip pattern, as shown in Fig. 3. The computer shows the midline dose to be 75% of the midline dose achieved with the four-exposure-per-strip pattern. In fact, if other factors such as strip length and AP dimensions are equal, the midline dose is directly proportional to the number of exposures per strip. One can thus use Fig. 1 to find the midline dose for the three-exposure-per-strip pattern. Simply take 75% of the dose given for the conventional four-exposure-per-strip pattern.

Thus, one can vary the time-dose relationship, a topic of current interest to many investigators, by changing the width of the strips, by changing the number of exposures per strip or by changing the given dose per strip. It should be kept in mind that the treatment time for a given point on the sequence of strips is varied only with the number of exposures per strip. The time required to progress down the trunk can be varied by the width of the strips or by the number of exposures per strip.

Fig. 4 shows the number of days required to treat both sides of the patient when using various numbers of exposures and numbers of strips in the field at its maximum size. One can then see at a glance how many total treatment days are required for a given number of strips with the various combinations of exposure.

The Distance to the 90% Line. The distance from the outside edge of the first strip to the 90% line was found to vary slightly with the width of the strips used. The distances are shown as follows:

Strip Width, cm	Distance to 90%, cm
2.5	2
3.0	3
4.0	2.5

The outside edge of the first strip was at the 50% level and sloped steadily up to the 90% line within the distances indicated above. This indicates that the field should extend from 2 cm to 3 cm beyond the point of interest.

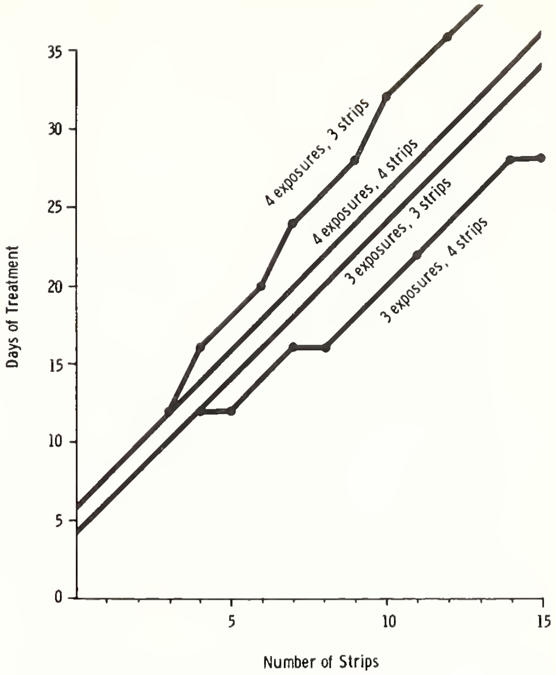

Fig. 4 Time and days for treatment with various orders of exposure and various numbers of strips.

Summary

In summary, this investigation disclosed that the moving strip is quite adaptable to different variations of technique, but the following points should be kept in mind during its use:

1. Dosimetry varies considerably with different types of cobalt units because of the unusual importance of the penumbra and, hence, makes it necessary to calibrate each unit individually for this technique.
2. The width of the strips may be varied from 2.5 cm to 4 cm with little change in dosimetry.
3. Dosimetry changes little as the length of the strip increases beyond 14 cm, but is significant for shorter lengths.
4. The order of treatment of the strips should be sequential and uninterrupted to best avoid hot spots.

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Use of an Ultrasonic Flowmeter (Doppler) in Diagnosis and Treatment of a Brachial Artery Occlusion

Case Report

This report describes the use of an ultrasonic device (Doppler) to detect, operatively monitor and postoperatively follow a patient with an arterial occlusion in the lower third of the brachial artery. It is concluded that this instrument is a valuable tool in the diagnosis, surgical correction and follow-up of many vascular disorders and its use saves time and money for both the patient and hospital. The authors are from the Department of Surgery, University of Missouri School of Medicine, where Dr. Lichti is an Instructor, Dr. Terry is an Assistant Professor and Dr. Ragland is Chief Resident.

STRANDNESS *et al*[1, 2] have described the use of an ultrasonic device which utilizes the Doppler effect as an effective tool in the diagnosis and follow-up of patients afflicted with peripheral vascular occlusive disease. In their articles, they have described the detection of an arterial occlusion in the lower third of the brachial artery following coronary angiography. We recently had the opportunity to use an ultrasonic device (Doppler) to detect, operatively monitor and postoperatively follow a patient with a similar occlusion. This is the case report of that patient as she progressed through the aforementioned procedures.

CASE REPORT

A 42-year-old, white woman was seen in the clinic 11 months following brachial artery catheterization for coronary angiography. Her chief complaint was of right forearm and hand discomfort following exercise and, at times, a change of sensations in the hand. Physical examination revealed a weak ulnar pulse in the right wrist. The right radial pulse was not palpable. Pulses and sensations in the left arm and hand were normal. Plethysmographic tracings of the right hand showed a blunting of the digital waveform indicative of a brachial artery occlusion with collateral artery reconstitution distally.

Examination of the afflicted arm with a 5 MHz ultrasonic flowmeter verified and isolated the occlusion by noting the normal and retrograde flow sounds. This was further substantiated audibly by the waterhammer effect heard when the ultrasonic probe was placed immediately proximal to the occlusion and then by noting the loss of sound when the probe was placed over the occlusion itself.

There was no indication at that time of collateral artery reconstitution with the radial artery, and it was determined that the radial sounds heard were retrograde via the superior ulnar and recurrent ulnar collateral arteries through the ulnar artery and around the palmar arch (Fig. 1).

The patient was scheduled for admission to the surgery unit for correction of the abnormality by utilization of a vein bypass graft. At the time of her admission, the patient was found to have a low hematocrit and hemoglobin content. Surgery was postponed until this condition was corrected.

About 60 days after the patient's first contact with the surgery service, she was admitted to the surgical unit for a corrective procedure. The right brachial artery was reexamined with a 10 MHz Doppler. The use of this ultrasonic flowmeter al-

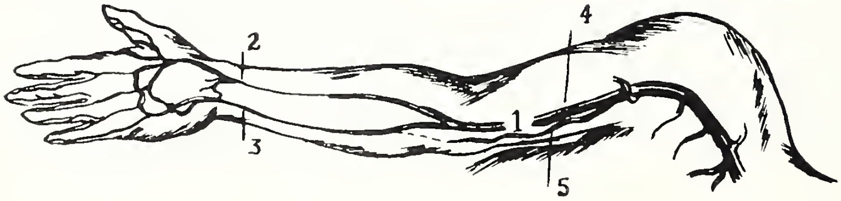

Fig. 1 Brachial artery occlusion as outlined by Doppler technique: 1. Occlusion; 2. Radial Artery, nonfunctional; 3. Ulnar Artery; 4. Brachial Artery; 5. Superior Ulnar Collateral Artery.

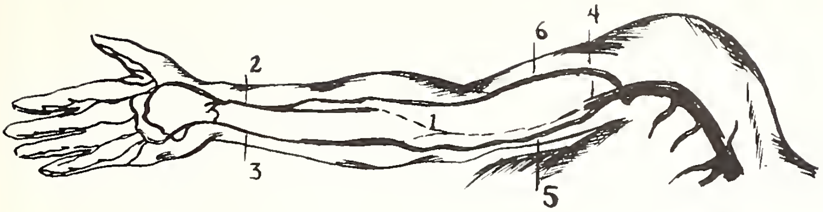

Fig. 2 Brachial artery occlusion as outlined by Doppler technique immediately preoperatively: 1. Occlusion; 2. Radial Artery; 3. Ulnar Artery; 4. Brachial Artery; 5. Superior Ulnar Collateral Artery; 6. Superior Radial Collateral Artery.

lows more flexibility than the original examining instrument. This flowmeter utilizes probes which may be gas sterilized. These probes with sterile leads may be placed in the operating field at the time of the surgical procedure. Our experience with this instrument has demonstrated to us that we can obtain the equivalent of arteriographic information from Doppler examination.[3]

The latter Doppler examination showed that the occlusive process had progressed to a point in the brachial artery just distal to the origin of the superior ulnar collateral artery (Fig. 2). It also was noted that flow had developed in the superior radial collateral artery, but digital plethysomography indicated no change in digital blood flow. No arterial sounds could be elicited from the brachial artery in the right arm with the Doppler, so systolic pressures were ascertained bilaterally with the Doppler placed over the proximal ulnar artery and the cuff in a normal position. The difference in arm pressures at both the first and second examinations was 20 mm Hg. Arteriograms were not obtained for fear of further compromising the blood supply to the right arm.

The patient was taken to the operating room on Feb. 28, 1969. After anesthesia, the brachial artery was exposed and found to be stenosed and the lumen of the artery was obliterated. It was elected to perform a saphenous vein bypass from the proximal brachial artery to the distal brachial artery at the bifurcation. After anastomoses were completed, a visible, palpable pulse was noted in the graft. Doppler examination of the graft revealed no flow through the graft. The proximal anastomosis was revised and flow was established. This was verified by ultrasonic technic.

Postoperatively, in the recovery room, digital plethysmography gave further evidence of a good procedure. An increased digital pulse volume was present along with a change in the waveform to a more normal patter.

Home exercises were tolerated and flow has been monitored by ultrasonic technic in the outpatient clinic. The original symptomatology is no longer present and the brachial artery pressures are equal. The plethysmograph tracings are normal and the patient has a patent graft and a strong right radial pulse six months after surgery.

Discussion

The case report of a 42-year-old woman who suffered a brachial artery occlusion following cardiac catherization has been presented. Plethysmography and ultrasonic flowmeter were used to document the initial diagnosis of brachial artery occlusion (Figs. 1 and 2). Operative arteriography was performed and the Doppler findings substantiated at the time of surgery. At operation, flow at potential anastomotic site was verified by use of a sterile ultrasonic probe and, finally, the function of the graft was conclusively demonstrated by the Doppler instrument.

The Doppler-type flowmeter has not replaced arteriography, but it can be more widely applied in the clinical situation where actual flow must be determined. It is now used to determine flow during cardiac catherization. When abnormalities are present, immediate corrective procedures are initiated.

Summary

An ultrasonic device using the Doppler effect to determine blood flow transcutaneously is a valuable tool in the diagnosis, surgical correction and follow-up of many vascular disorders. It is lightweight, portable and readily accepted by the patient as it causes no physical or mental discomfort.

Intraoperatively, it provides an instantaneous assessment of blood flow allowing for appropriate corrections to be made at the time of the procedure. This instrument is utilized in clinical screening and its use results in a saving of time and money both to the patient and hospital.

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Effectiveness of Two Treatment Modalities With Alcoholics

In 1959, the American Medical Association decided that "alcoholism must be regarded within the purview of medical practice." A decade later, the American Bar Association and the American Medical Association issued a joint statement about alcoholism being a disease. The fact that two professional organizations with prestige consider it necessary to make these official pronouncements underlines the controversial attitudes about alcoholism as a social phenomenon. Even if alcoholism might be accepted as a disease today, it is by no means a respectable disease.

Thus, alcoholism has received public sanction as a human condition to be treated in the same spirit as other recalcitrant and trying diseases. Currently, many general hospitals are accepting patients for care with alcoholism as the primary diagnosis and many insurance carriers are willing to pay for hospital costs. However, the unrespectability of alcoholism lingers on in public attitudes, as exemplified by the silent conspiracy between patient and doctor to enter onto the hospital chart and insurance forms diagnoses other than alcoholism.

Two treatment programs for alcoholics in a mental health center are compared. They are a short-stay, inpatient service and a three-week rehabilitation service. Using a post-treatment period of sobriety over or under six months, pre-post employment and pre-post arrests as outcome indexes, no differences were found between the programs except for a greater reduction in arrests for the rehabilitation group. Two factors influencing treatment outcome in general and implications for treatment are discussed. The authors are from the Greater Kansas City Mental Health Foundation, Western Missouri Mental Health Center and the Department of Psychiatry, University of Missouri-Kansas City.

For several decades, it has been demonstrated that the acute states of alcoholism can be cared for effectively on general medical floors in the hospital. Nevertheless, the treatment of alcoholism in its many manifestations has gravitated toward the psychiatric domain, particularly the public sector of psychiatry. This drift has its explanation not only in the economic condition of many alcoholic patients but, also, in the fact that most alcoholics only become patients under varying degrees of social coercion (family, friends, employers, police and courts). This societal pressure on the one hand and the necessary zeal of the "friends" of alcoholics on the other has created a climate militating against evaluation of outcome of treatment. The care of alcoholics has become a matter of public concern and the rumor in professional circles is that if anything is effective in working with alcoholics, it is the interest and therapeutic optimism of the care-givers.

A precursor of comprehensive medical care is the community mental health movement. With the emphasis on continuity of care, mental health centers have organized such broad ranges of services for alcoholics as emergency care, hospitalization for acute states, rehabilitation wards, partial hospitalization, outpatient care and half-way houses. The Western Missouri Mental Health Center provides such an array of services.

The two major treatment modalities for alcoholics, the three-week Rehabilitation Program and the short-stay on the general psychiatric ward, were selected for an analysis of comparative effectiveness.

The order of discussion is as follows:

(A) Method of the Study

(B) Comparison of Effectiveness of Two Treatment Modalities

(C) General Characteristics of Alcoholic Patients Associated with Outcome of Treatment

(D) Discussion

(E) Conclusion

METHOD OF STUDY

To measure outcome, the decision was made that between six to 12 months should have elapsed following treatment. Of the 78 patients interviewed six to 12 months after treatment, 26 received their treatment in the general psychiatric inpatient services for a period of one to seven days and 52 patients spent three weeks in treatment on the Rehabilitation Ward for alcoholics. In addition to the three-week rehabilitation program and the short inpatient hospitalization (I-P) on the general adult psychiatric ward (length of stay, one to seven days), we considered the Holding Clinic as a separate treatment modality. Patients are assigned to the Holding Clinic after mental evaluation for the severity of the medical-psychiatric emergency. Floridly psychotic patients cannot be adequately supervised in the Holding Clinic area, which can be viewed as an extended waiting room with beds where patients receive rest, minor tranquilizing medication, fluids and food. The length of stay in that area ranges from four to 24 hours while plans for further treatment are negotiated with patients and relatives during that period. Contrary to the popular opinion of the clinical staff, the Holding Clinic rarely was used as a primary treatment modality. Most of the alcoholics assigned to Holding Clinic were previously treated either on the general Inpatient Service or on the three-week Rehabilitation Ward. Only ten patients were placed in the Holding Clinic as their primary mode of treatment. This was too small a sample for proper analysis.

The two remaining treatment services are sufficiently distinct to warrant outcome comparisons. These two services differ in important aspects (Table 1).

TABLE 1

Character of Differences	*Type of Service* GEN. IP SERVICES	3-WEEK REHAB. PROGRAM
Length of stay	4 days (average)	21 days
Interactive orientation	Minor	Major
Educational orientation	Absent	Strong
Cost per/patient	$200	$820

Assignment to general I-P Service takes place in the emergency room where the severity of an acute state is an indication for hospitalization. The rehabilitation program runs for three-weeks and assignments or admissions are made at the beginning of each three-week cycle. There is no special recruitment effort made for the rehabilitation program, but rather, patients are drawn from among those who apply for service near the beginning of the three-week cycle. There are very few who reserve a place in advance for this service. Each time, a few are accepted from the Municipal Farm.

Alcoholics are not noted for making plans for treatment for themselves. Nearly all patients arrive at the treatment facility under considerable coercion from family, friends, police or court.

The search of the records resulted in identifying 81 patients who were admitted to the general psychiatric Inpatient Service and 137 patients admitted to the Rehabilitation Ward. Their treatment in those two services took place between the six and 12 months prior to this study.

Follow-up interviews were done by four summer employees (college students) after receiving training in locating persons, gaining entrance and conducting interviews. The interviewing took place during June, July and August, 1969. In locating persons, every available source of information was used, including names of relatives, friends, landlords, neighbors and Municipal Farm roster, resulting in 78 (36%) completed interviews out of a possible 218 (Table 2).

TABLE 2

	In-Pat. Groups	*Rehab. Group*	*Total*
To be interviewed	81	137	218
Refusals	3	2	5
Deceased	2	3	5
No available address (transient)	6	19	25
Moved, unable to locate	41	40	81
Moved out of town	3	21	24
Interviewed	26	52	78 (36%)

Of the persons eligible to be interviewed, 50 (62%) of the 81 in the Inpatient Group and 80 (58%) of the 137 in the Rehabilitation Group have moved either within the city, to unknown addresses or out of town or they have remained transient. These moves occurred within a period of six to 12 months.

To justify comparative analysis of the outcome of the two treatment groups, we will establish similarities and differences between the two groups prior to hospitalization (Table 3).

The Rehabilitation Treatment Group distinguishes itself with more arrests, more time in jail and longer sobriety periods than the Inpatient Group. These three items are interrelated

TABLE 3

	Gen. I-P Services		*Rehabilitation Unit*
Median Age	42		46.4
Sex			
Male	19		43
Female	7		9
		N.S.*	
Number of arrests in year prior to treatment			
Never	14		9
1 time	1		4
2-7 times	7		16
8 or more	4		23
		$X^2 = 12.5$ df = 3 $p < .01$	
Employment prior to treatment			
Employed	14		32
Unemployed	12	N.S.	20
Living Arrangements			
Alone, single	4		11
With others, single	7		18
With spouse (with or without children)	14		18
Municipal Farm	1		5
		N.S.	
Length of sobriety during 1 year prior to treatment			
Never, 1 day or 1 week	5		16
2 weeks—2 months (includes schedules)	10		10
3 months or more	11		25
Unknown			1
		N.S.	
Time in jail during year prior to treatment			
Never	17		15
2 months or less	6		14
3 months or more	3		23
		$X^2 = 11.3$ df = 3 $p < .02$	

* N.S. = No significant difference.

because more arrests lead to more time in jail and, therefore, a longer period of enforced sobriety.

The Rehabilitation Group has relatively more employed persons than the Inpatient Group and fewer persons living with spouse than those in the Inpatient Group. None of the enumerated differences approach statistical significance except for the arrest rate and time in jail for the period of one year prior to hospitalization. (Throughout this paper, the .05 level of probability is the maximum level acceptable for statistical significance.) This finding reflects the mechanics of the assignment procedure to the Rehabilitation Unit. Some patients arrive at the Unit as a condition of their parole from the Municipal Farm and, thus, had histories of many arrest, since only those with many arrests are sent to the Municipal Farm.

Taking into account the difference in arrest rates, we will now proceed to the comparative analysis of the outcome between the Inpatient Group and the Rehabilitation Unit Group.

COMPARATIVE EFFECTIVENESS OF TWO TREATMENT MODALITIES

A major outcome measure will be the length of time the patient stayed sober following hospitalization. Because the time period between treatment and interview varied from six to 20 months, we used six months as a cut-off point for sobriety (sober less than six months and sober more than six months) since all respondents had a chance to remain sober for at least six months.

Table 4 displays the relationship between periods of sobriety following treatment and the two treatment modalities. The Rehabilitation Group tends to remain sober somewhat longer than the Inpatient Group, but this difference is not statistically significant.

TABLE 4

TREATMENT MODALITIES

	I-P Group	*3-Week Rehab.*	*Totals*
Period of Sobriety			
Less than 6 months	21	36	57
More than 6 months	5	16	21
	—	—	—
	26	52	78

A more refined breakdown of the period of sobriety is shown in Table 5. It is clear from this table that the Rehabilitation Unit Group is a far less homogeneous group than the Inpatient Group in terms of length of time sober. The Rehabilitation Group contains two extremes, those who return to drink almost immediately following hospitalization and those who remain sober six months or longer.

Another relative measure of outcome is the arrest rate following treatment. Because of the acknowledged difference in arrest rate between

TABLE 5

TREATMENT MODALITIES

	I-P Group	*Rehab. Group*	*Totals*
Period of Sobriety			
1 day	5	10	15
1 week	3	2	5
2-4 weeks	5	6	11
2 months	5	6	11
3-5 months	3	12	15
6 months	5	16	21
	—	—	—
	26	52	78

the two groups, we view number of arrest pre- and post-treatment separately for each group. The pre-treatment period of arrest is one year. We have calculated arrests for a similar post-treatment period.

Table 6 (A, B, C, D) compares the number of arrests one year prior to treatment to the number of arrests following treatment within each treatment modality. Adjustments were made to account for those respondents who were out of the hospital for less than a year.

TABLE 6

	A		*B*	
	I.P.-GROUP		REHAB. GROUP	
	Pre	Post	Pre	Post
Number of Arrests				
Never	14	19	9	25
1	1	3	4	1
2-7	7	3	16	13
8 or more	4	10	23	12
	—	—	—	—
	26	26	52	50
				+ 2 unknown
				——
				52

or calculated for the same groups more simply:[1]

	C		*D*	
	I.P.-GROUP		REHAB. GROUP	
	Pre	Post	Pre	Post
Number of Arrests				
Never	14	19	9	25
1 or more	12	7	42	25
	—	—	—	—
	26	26	51	50
			+ 1 unk.	+ 2 unknown
			—	—
			52	52
	N.S.		$X^2 = 14$	
			p	$<.0005$

Focusing on pre- and post-arrest rates for each treatment modality, we see improvement for both groups. The most outstanding improvement is with the Rehabilitation Unit patients and this last difference is statistically significant (Table 6 [D]). This same calculation for the Inpatient Group and pre- and post-arrest rates show an insignificant association. Stated differently, the Inpatient Group shows a percentage reduction in pre- and post-treatment arrest rates from 45% to 26% and the Rehabilitation Group from 86% to 50%.

While noting the relatively greater improvement of the Rehabilitation Group, it must be remembered that in view of their pre-treatment arrest rate, they could hardly have gotten worse. The time spent in jail is not a relevant outcome measure. After all, the sentence imposed is influenced by past number of offenses.

Another outcome measure used is employment. The data show that there are no significant differences between the two groups (Table 7 [A and B]).

TABLE 7

	A		*B*	
	I.P.-GROUP		REHAB. GROUP	
	Pre	Post	Pre	Post
Employment at Time of Interview				
Employed	14	11	32	24
Unemployed	12	15	20	27
	—	—	—	—
	26	26	52	51
	N.S.		N.S.	+ 1 unknown
				—
				52

The pre-treatment employment rate may be somewhat inflated since the responses regarding pre-hospital employment refer to variable periods of time preceding application for service. Of more pragmatic significance may be the fact that while in the hospital, less than half of the patients had jobs awaiting them at the point of discharge, i.e., 11 of 26 in the Inpatient Group and 25 of 52 in the Rehabilitation Group reported having a job to go to at the point of leaving the facility.

The three unambiguous criteria for improvement—periods of sobriety, employment and number of arrests—also were used to construct an improvement criterion scale using pre- and post-data for each patient. On each criterion, a patient could be better, same/good, same/bad or worse. Again, no differences emerged between the two treatment groups using the chi-square test.

Summarizing the differences in outcome between the general psychiatric service Inpatient Group and the three-week Rehabilitation Group leads to the conclusion that no major differences in outcome were observed. However, to be noted is the minor trend in favor of the Rehabilitation Group in that these patients held out a little longer with their period of sobriety following treatment and more improvement was observed in arrest rates. Nonetheless, this is a meager gain considering the scope and intensity of the Rehabilitation Program as compared with the short stay hospitalization on the general I-P Psychiatric Service.

PATIENT CHARACTERISTICS AND THEIR RELATIONSHIP TO TREATMENT OUTCOME

At this point, the presentation focuses on the total group of 78 alcoholics and factors which might be associated with sobriety. Factors explored are age, race, sex, occupational statuses, education, aspiration level, self-reports about happiness and well-being, employment and living arrangements.

Again, the treatment outcome measures used are periods of sobriety, employment, number of arrests following treatment and a combination of all three in an "improvement scale." All the relationships explored produced weak and insignificant associations except those dealing with employment and living arrangements. We shall now report in greater detail about these two dimensions.

TABLE 8

POST-TREATMENT PERIOD OF SOBRIETY

	Shorter Than 6 Mo	*Longer Than 6 Mo*	*Total*
Living arrangements at time of interview			
With Spouse	12	14	26
Other*	45	7	52
	—	—	—
	57	21	78
	$X^2 = 14.4$ $p < .001$		

* The category "other" included 11 persons in the Municipal Farm, ten in "shorter than six months" and one in "longer than six months" cell.

Table 8 shows a significant association between living arrangements and period of sobriety.

Those living with spouse (with or without children) have distinctly longer periods of sobriety than persons with other living arrangements.

Table 9 shows the association between periods of sobriety and employment. Included in the employment category are two housewives and one retired man; all three stayed sober longer than six months. Among the unemployed are 11 persons in the Municipal Farm, ten in the "shorter than six months" category and one in the "longer than six months" sobriety category.

TABLE 9

PERIOD OF SOBRIETY

	Shorter Than 6 Mo	*Longer Than 6 Mo*	*Total*
Employment at time of interview			
Employed	17	17	34
Unemployed	35	9	44
	—	—	—
	52	26	78
	$X^2 = 7.5$ $p < .01$		

The chi-square test is significant beyond the .01 level when the persons on the Municipal Farm are included, but when they are excluded, the significance level drops to a level between .02 and .05. Thus, both living with spouse and employment are positively associated with length of sobriety.

At this point, we shall extend the post-treatment, six-month sobriety measure to include seven patients, five from the IP Group and two from the Rehabilitation Group, who "fell off the wagon" only once but shortly returned to complete abstinence. Relaxing the strict sobriety rule in the outcome measure can be defended: one lapse into drinking followed again by abstinence might be considered to be like stumbling while trying to walk. When the sobriety measure includes these "lapsers," another seven patients enter the "six months or longer" sobriety period. This modifies the data, as shown in Table 10.

The association is similar to the one reported with the strict sobriety rule. An examination of the pre-treatment sobriety shows the following in Table 11.

TABLE 10

POST-TREATMENT PERIOD OF SOBRIETY (INCLUDES SEVEN "LAPSERS" WITH ONE LAPSE)

	Shorter Than 6 Mo	*Longer Than 6 Mo*	*Total*
Living arrangement at time of interview			
With Spouse	12	16	28
Other (excludes 11 persons at Municipal Farm at time of interview)	30	9	39
	42	25	67
	$X^2 = 8.1$ p between .01 & .001		

Treatment, thus, has a significant effect with the married group.

The same cannot be stated about the unmarried group. They appear to be doing worse. In interpreting this finding, it should be considered that those unmarried persons may have over-reported the sobriety period preceding the treatment.

Focusing again on employment with this new measure of sobriety, we find the following association (Table 12):

TABLE 12

POST-TREATMENT SOBRIETY (SEVEN "LAPSERS" INCLUDED)

	Shorter Than 6 Mo	*Longer Than 6 Mo*	*Total*
Employment			
Employed	17	17	34
Unemployed	25	8	33
	42	25	67
	$X^2 = 4.75$	$p < .05$	

Among the 17 employed with longer than six months sobriety are two housewives and one retired man. The trend for the employed to do better than the unemployed is obvious and is statistically significant. The association between the married employed persons and single persons and sobriety is not a significant statistical association.

Of the 78 patients, 26 (33%) maintained sobriety longer than six months. When the 11 patients living on the Municipal Farm at time of interview are excluded, 16 of 28 patients living with spouse and nine of 39 patients living alone or with others were sober longer than six months or 57% and 23%, respectively.

TABLE 11

PRE-TREATMENT SOBRIETY PERIOD

	Shorter Than 6 Mo	*Longer Than 6 Mo*	*Total*
Living arrangements at time of interview			
With Spouse	19	9	28
Other (excludes 11 persons living at Municipal Farm)	17	22	39
	36	31	67
		$X^2 = 3.8$	
		df = 1	
		$p < .05$	

At the time of interview, the subjects were asked to indicate whether they were very happy, fairly happy or not happy at all.

No significant relationships were found between any of the degrees of happiness and sobriety or living arrangements. When looking at the responses, it is surprising that only 12 of 72 respondents stated that they were not happy at all, 45 reported being fairly happy and 15 reported being very happy.

This finding may indicate the irrelevancy of the question with persons in bleak living conditions. Brenner[2] found fewer self-reports of being happy among persons with relatively minor drinking problems compared to the population studied here.

Another facet explored was the Self-Anchoring Scale.[3] Respondents are asked to indicate on a ten-step ladder where they place themselves in the past (five years ago), in the present and in the future (five years hence). The scale was scored by comparing the past and future scores to the present score, e.g., ranking of five, three and seven, respectively for the past, present and future is scored as minus-two, three and plus-four. In the analysis, the respondents were divided into four groups by post-treatment living arrangements and by post-treatment period of sobriety.

An analysis of variance was used to determine whether any of the groups differed in their self-assessment.

The only significant finding was that the group of respondents with longer periods of sobriety (longer than six months) considered themselves worse off in the present than in the past and the group with a shorter sobriety period (shorter than six months) considered themselves better off in the present than in the past. A tentative interpretation of this finding is that those who take their problem most seriously and have struggled with it are the same persons who clearly perceive their own downward drift in time. Those persons clearly failing in life seem to protect themselves from facing failure by inaccurate assessments of past and present aspiration.

DISCUSSION

It is generally accepted that the acute states of alcoholism can be treated medically within the time span of less than a week. The length of time depends on factors such as medical complications and changes of the central nervous system of a nonreversible nature. The focus of this evaluation is not on the various methods of treatment of the acute alcoholic states. Thus, we bypass discussion about the relative merit of one regime above the other. More central to the issue of this paper are reports of follow-up studies with alcoholic patients. In this context, a comparative evaluation of "insight" therapy versus "recreational therapy" conducted by Levinson and Sereny[4] concludes that the "recreational" therapy program, an unstructured six-week program, produces at least equal results in terms of sobriety periods as the "insight program." The follow-up period was one year post-treatment. The improvement rate was 25% for both treatment modalities combined. When broken down, however, the improvement was 15% in the psychological treatment group and 33% in the recreational treatment group. Because of the small number of subjects, the difference between the two treatment modalities was not statistically significant. Ninety percent of the population were interviewed after one year of treatment. In part, this was accomplished by a reminder telephone call every three months. Unfortunately, the characteristics of the study population are not reported. Comparison with this study is obviously questionable because their study population had telephone listings and the follow-up period was twice as long. There are two points of interest: the psychological treatment was equal to or less effective than the recreational treatment group and, to quote Levinson and Sereny, "one is struck by the total unpredictability of patients' success."[5]

Freeman and Hopgood,[6] reporting about a four to six week inpatient program, followed by outpatient visits and a follow-up period of four to 18 months, state that 23% were improved and only 14% maintained total abstinence.

Bowen and Androes,[7] strike a similar note. Patients completing the prescribed program have an abstinence rate of 25%. Also reported are steadier employment. Caution is voiced against assuming a causative link between employment, marriage and improvement.

A three-month follow-up study of 100 skid-row alcoholics by Burnham[8] reports 13 abstinent, 57 drinking, 17 still in treatment and 13 who had not been located. A specific rehabilitation need mentioned is a work-adjustment program.

Age, not frequently mentioned as an important variable, is reported to be positively related to treatment outcome and a more consistent outcome predictor than any other demographic variable by Nathan, Lipson, Vettraino and Solomon.[9] A one-year follow-up study of a treatment program by Pokorny, Miller, and Cleveland,[10] with emphasis on vocational guidance, training and placement assistance, reports one third of the group as abstinent and one half of the group as overall improved.

Kurland,[11] describing a treatment evaluation of alcoholics, mentions that 63% of the subjects at the end of the six months had returned to drinking and by the end of one year the figure was 78%. Demographic data proved better predictors for post-hospital adjustments than did psychological variables. The most valuable predictors were living with wife, first hospitalization, hospital ward adjustment and sobriety periods prior to hospitalization.

Smith[12] compares periods of abstinence (four to nine months) of married alcoholics with or without the involvement of the wife in the treatment process. The results are far superior when wives are participants than when they are not involved. He hypothesizes that participation of wives is a positive quality in the treatment process. Leipold[13] reports similar results.

Kissin[14] and others mention many of the above reported findings as important factors, but emphasize, in addition, the positive association between clinic attendance and improvement.

Singer, Blane and Kasschau[15] present evidence about the relationship of social isolation and alcoholism. Diagnosed alcoholics, undiagnosed alcoholics and a control group are compared on a number of measures of social isolation. The measures distinguishing between the three groups were marital status, living with closest relatives, marital stability, insurance for hospital care and referral pathway for treatment.

The findings of our study point in a similar direction. The social isolation concept is important because it suggests strategies for treatment.

Conclusion

The meager difference in favor of the Rehabilitation Unit is demonstrated only in fewer arrests in the post-treatment period as compared to pre-treatment arrests for that group and a minor trend toward staying off alcohol slightly longer than the short hospital stay treatment group.

Viewing the evaluation of the two treatment modalities in the light of reported findings, this lack of effectiveness is not surprising. Much ignorance is evident in the selection of patients most likely to respond to a specific treatment modality. At what point in the career of an alcoholic and under what circumstances is a psychologically-oriented alcoholic rehabilitation program the most effective treatment? Stated differently, when is a short hospitalization indicated? Equally important, what role do the expectations of patients and relatives play in relation to treatment process and outcome?

Is awareness of progressive isolation in the career of an alcoholic an important positive predictor for treatment success? The assessment of the downward drift of the personal aspirations over time is at least positively associated with longer periods of sobriety. It is also in line with the AA philosophy that to be able to work on alcoholism as a personal problem, an alcoholic has to experience the depth of his downfall. Careful assessments of these factors offer a more promising basis for selection of patients for particular modes of treatment than does the view that any one program can be effective for all alcoholics.

The two factors influencing treatment outcome, in general, living with spouse and employment, are obviously important for treatment planning. More concentrated efforts should be expanded in the area of vocational rehabilitation, and attention should be paid to more viable living arrangements (structured half-way house arrangement) and active continuous follow-up to counteract the obvious social downward drift of many alcoholics.

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President's Message

Missourians, along with other Americans, will go to the polls on Tuesday, November 3 to choose many of the men and women who will make important governmental decisions in the next two to six years.

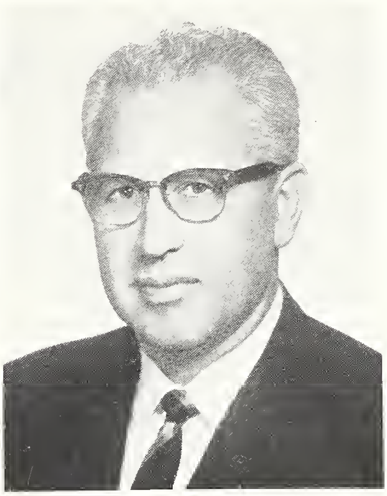
In Missouri, we have two statewide elections. We have the privilege of helping to choose a State Auditor, a U. S. Senator for the next six years and all ten members of our U. S. House of Representatives, as well as 17 members of the Missouri Senate and all 163 members of the Missouri House of Representatives.

It has almost reached the point where urging people to vote is like crying "wolf." This certainly should not be the case for those in our profession because elected officials make many decisions which affect out practice.

Every election is important and every individual vote is important. This has been proved time after time since 1776.

It would appear that those we elect to Congress this year will make an important decision concerning the future of the health care system in our nation.

In addition to the many important items of legislation which they will face in the next two years, members of the Missouri General Assembly will have the task of redrawing the lines of their own House and Senate Districts as well as establishing new district boundaries for Missouri's Congressmen.



Joseph L. Fisher, M.D.

The one-man-one-vote rule of the Supreme Court has made the redistricting task tougher and, at the same time, more important.

I earnestly believe that it is the duty of every physician, his wife and other voting-age members of the family to *know* the candidates and *vote* for the candidates of their preference.

When you receive this Journal, the November election will still be almost a month away. There is still time to learn the views of candidates in your area so that you may vote intelligently on November 3.

There also is time to lend your support to the candidates you favor. I am certain that they will welcome such support.

The final month before the election is the crucial time in all political races. But if you wait until Wednesday, November 4, it will be too late.

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Warnings: **Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired.** Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, **check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., certain elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—they can both cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

Supplied: Bottles of 100 capsules.

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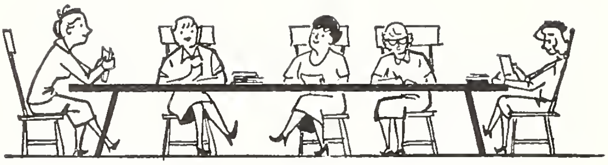

"Physician, heal thyself" is an old maxim dressed up in new clothes this year for the doctor and his family. Mrs. R. C. L. Robertson, our National Auxiliary President, is emphasizing physical fitness and good health as an individual responsibility for members of the medical families of the nation. She points out that each individual decides which foods he eats, which exercise he takes, what he does in regard to the health hazards of smoking or drinking and whether or not he avails himself of proper health supervision.

Mrs. Robertson states emphatically that this responsibility for one's health cannot be legislated and that no agency at local, state or national level can guarantee health. But doctors and their families can and should set the example for others to follow. As we use the excellent programs developed by AMA and its Auxiliary for health education, we can motivate others to be concerned about their fitness and health.

Mrs. William M. Walker
President

Does your community have a particular health problem that needs attention now? Take inventory. One of the ten package programs available to county auxiliaries for use in their communities may be just what is needed where you live. Do the young people or adults in your town seem to need information about drugs or venereal disease, or do you need to recruit health manpower? Perhaps there is a need for rubella immunization in your town. Don't overlook your best ally for meeting these needs—your medical auxiliary. We work at your request and because it's you who ask, we give you our very best.

Community Health Week will be observed through the nation on October 18-24. Emphasis will be placed on the importance of blood donations, rubella immunization, physical fitness or whatever program the local societies and auxiliaries choose to highlight for their communities.

And remember, there is one special group you must not overlook. How fit are you, Doctor, and when was YOUR last check-up?

EDITORIALS

THE AUXILIARY AND THE MISSOURI STATE MEDICAL FOUNDATION*

Mrs. William M. (Pat) Walker, State Auxiliary President, has placed increased emphasis on our support of the Missouri Loan Foundation. It provides an excellent way to give a helping hand to Missouri's future physicians.

Sole function of the Foundation is to help qualified young Missourians with limited means to become medical doctors—to the benefit of the medical profession and the public alike.

Educators at Missouri's three medical schools have praised the Foundation and its progressive approach to the critical problem of financial aid for worthy students. Typical is this statement by a Missouri medical school dean: ". . . If the American way is to conquer over bureaucracy, this is the way it will be done."

The Foundation must have generous financial support if it is to satisfy on a continuing basis the very real financial needs of many fine young candidates for the M.D. degree.

Contributions, in any amount, will be gratefully received. Every dollar will be used and reused to aid our future physicians, since all administrative expenses of the Foundation are borne by the Missouri State Medical Association. Also to be remembered is that gifts to this cause are eligible as deductions on both federal and state income tax returns.

Special gifts and memorials to the Foundation are promptly acknowledged.

We hope you will join with us in support of this very worthwhile endeavor.

Mrs. Catherine Shevlin, President
Buchanan County Medical Society Auxiliary
The Bulletin of the Buchanan County Medical Society

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* Complete information regarding the MSMF Medical Student Loan Fund is published on page 756 of this issue of Missouri Medicine.

READ IT, I DARE YOU!

Seldom do I believe that an editorial is the proper place for a book review. Occasionally, however, a book flashes across our culture which to ignore would be as senseless as to ignore a comet. Such a book is "The Lessons of History" by those wise and gentle philosphers, Will and Ariel Durant.

"The Lessons of History" is a condensation of the ten-volume "The Story of Civilization" by the Durants. This is a monumental project requiring their authorship over a period of 32 years, 1935-1967.

This small book, however, contains only 102 pages of large print. But what print it is, and what beautiful use of the English language! Every page abounds in thoughts about today's perplexing problems and perspectives for their solutions.

If it were possible for me to do so, I would make this book required reading for every college student, every legislator, every teacher and every one of the clergy. It is impossible to spend two hours with this book and not emerge a more mature and thoughtful person. It's that good.

Don't pass it up . . . please!

Wilfred E. Wooldridge, M.D.
Springfield

THIRD PARTY SERENDIPITY

An unexpected effect of broadening third party health coverage may be to further the education of of the physician. Such is the approach taken by some spokesmen for peer review systems. We recognize that hospital beds would not be full if there were no system of either government financed or privately insured hospital care.

Along with these developing methods of third party payment comes the necessary requirement of quality control, both over hospital operations, including bed utilization, and medical care. Who of the medical profession would invest in a business which spent sizable sums of money without having good assurance that the money was buying full value?

Physicians themselves started the system of review of hospital records which is now a time honored and necessary part of quality control for medical care, witness the tissue committee, medical record committee, departmental conferences, etc. Increasing costs of hospital care require increased ef-

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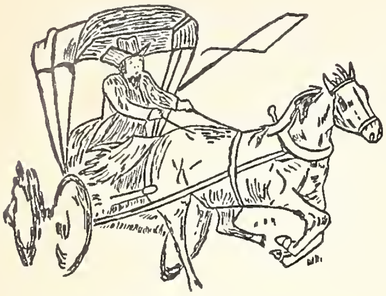
LEO H. POLLOCK, M.D.

Missouri Medicine in Review



FORTY YEARS AGO

Dr. L. C. Chenoweth, Joplin, moved that the following telegram be sent to Dr. Morris Fishbein, Chicago, editor of *The Journal of the American Medical Association: "Resolved,* that the Missouri State Medical Association, at the 73rd Annual Meeting in Hannibal, unanimously commends Dr. Morris Fishbein for his unrelenting activity and efforts to protect the public from quackery. E. J. Goodwin, M.D., Secretary."

A unique plan to provide modern hospital treatment of sick persons who are unable to pay the regular fees of the hospital or the physician, but who are unwilling to be regarded as "charity" patients, has been inaugurated in Boston through the gift of money by philanthropic persons interested in that troublesome question, "The high cost of medical care." *The New England Journal of Medicine* has watched with interest the building and opening of the Baker Memorial of the Massachusetts General Hospital (Boston), which is the "department for people with moderate means." Patients in this hospital are cared for by members of the staff of the Massachusetts Eye and Ear Infirmary. All professional charges are included in the patient's hospital bill and the maximum charge for all professional services has been fixed, no matter how long the treatment or how serious the case.

The Baker Memorial has now been in operation for nearly five months and there is every indication that the project is to be a success.

TWENTY-FIVE YEARS AGO

A study of the location, movement and changes in urban and rural totals for established physicians from 1923 to 1938 has been made by the U.S. Public Health Service. During this period, more than one fourth of the physicians changed their places of practice one or more times, which accounts for 87,000 moves. "The combined effect of physician migration, recruitment and losses from the profession, during the period of 1923-1938, resulted in gains for both large and small cities and in losses for rural communities."

Failure of rural localities to attract and retain a proportionate share of new registrants has resulted in a distribution heavily weighted with old physicians. Such concentration of older practitioners in rural communities implies not only a reduced service capacity for the average physician in those areas due to advanced age, but, also, an accelerated rate of loss through retirement and death.

"How shall the deficit in the number of rural doctors be met?" The Association has supported House Bill No. 291, introduced by Mr. Whinrey of Lawrence County, which provides for scholarships for medical students from each of the state's 34 senatorial districts. There is another provision in the bill denoting that the student, on graduation, must agree to practice within his district for a period of five years.

TEN YEARS AGO

A federal-state cost sharing health care plan, which is in line with the AMA's legislative policy, has been sent to President Dwight Eisenhower for his signature. It is almost certain that he will sign the bill which provides health care for the needy and near-needy aged. The cost of the first full year of the medical care program is placed at $202 million for federal government and $61 million for state governments.

An interesting and profitable evening was shared by physicians and high school football coaches of the West Central Missouri area at the Nevada Country Club on September 8. This gala occasion was centered around the program on "Athletic Injuries," which was jointly sponsored by the University of Missouri School of Medicine and the Missouri Academy of General Practice.

The medical staff of the Phelps County Memorial Hospital recently installed M. K. Underwood, M.D. of Rolla as chief-of-staff. J. D. Butts, M.D., Rolla, was elected assistant chief-of-staff.

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(1) Siver, R. H.: CMD, 21:109, September 1954. (2) Frykman, H. H.: Minn. Med., 38:19-27, January 1955. (3) McGivney, J.: Tex. State Jour. Med., 51:16-18, January 1955. (4) Quehl, T. M.: Jour. of Florida Acad. Gen. Prac., 15:15-16, October 1965. (5) Weekes, D. J.: NY State Jour. Med., 58:2672-2673, August 1958. (6) Ellis, S. and Spratt, J. S.: JOUR. AMER. GER. SOC., 18:410-415, May 1970.

Missouri Medicine

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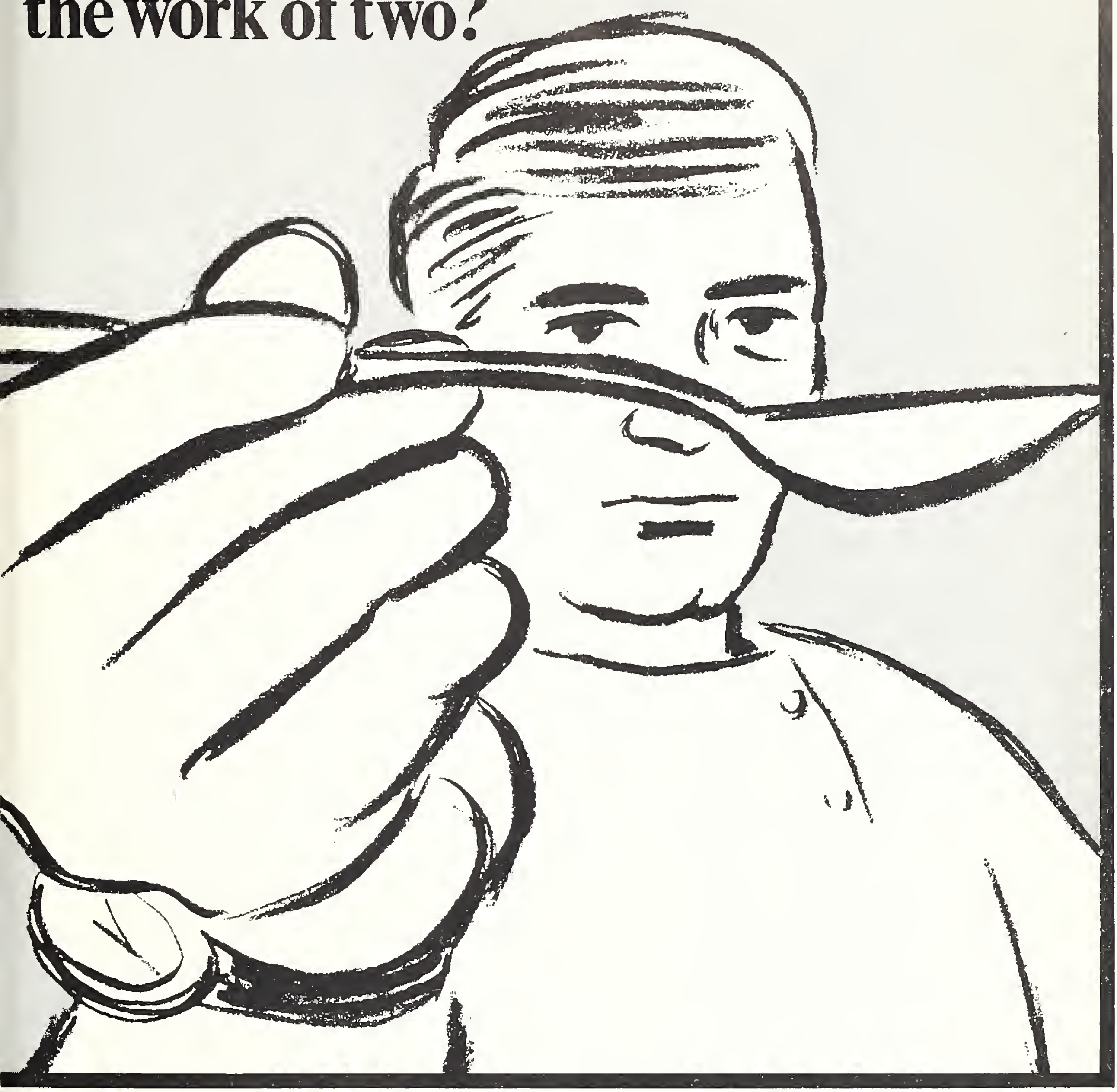
Can one prescription do the work of two?



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GEORGE A. ULETT, M.D., ***Director***
Missouri Division of Mental Health

Ten Years of Mental Health Progress in Missouri—Next Step?

Special Article

As late as the mid-1950's, Missouri was described as "having one of the worst mental health programs in the nation." Our state's present high ranking in the delivery of health care has been achieved during the last ten years, and the Missouri program is now considered by professionals in the field to be one of the most interesting and modern in the nation. In this comprehensive article, Dr. Ulett reviews in detail the reasons for this progress, defines the pitfalls of a recent lag in pace and projects the possibilities for the future if the momentum can be restored. Dr. Ulett also is Chairman and Professor, Department of Psychiatry, University of Missouri School of Medicine at the Missouri Institute of Psychiatry, St. Louis.

STATE MENTAL HEALTH PROGRAMS are emerging from a long, dark century infamous for the neglect of patients under policies of low-level custodial care. Things are getting better, but progress among the 50 states has been uneven, uncertain and slow.

Eight major road blocks to progress have been (1) lack of a valid data base to define the extent of the public mental health problem and pinpoint its causes; (2) semantic confusion within the specialty of psychiatry; (3) empirical methods of treatment whose effectiveness has been difficult to gauge; (4) lack of funds; (5) shortages of mental health manpower; (6) political uncertainties; (7) the need to tailor programs to patterns of archaic, badly located state hospitals; and (8) lack of continuity in programming as a result of frequent changes of the directors of state mental health programs.

A few states emerged early from the dark age of minimal custodial care and built mental health programs that have enjoyed high-level public support and comparative budget stability for a long time. Missouri, emphatically, was not one of them. In fact, as late as the mid-1950's, Missouri was authoritatively described as "having one of the worst mental health programs in the nation." The state's present ranking, well above the middle and trending higher, has been achieved over the last ten years.

There are special reasons why Missouri emerged late from its own "dark age." It is a middle-sized state that had, at the same time, a greater-than-average mental health problem and a far lower-than-average tax base. Its state hospitals, most in poor locations, were obsolete; some, in fact, had been built before the Civil War. All were overcrowded and abysmally understaffed. Finally, Missouri was without appreciable reserves of trained mental health manpower.

Early Steps

In 1957, Missouri's legislature took the first important steps toward reform, being led by progressive-minded legislators and urged on by a newspaper campaign. An advisory Mental Health Commission was created, and legislation was enacted requiring that the director of the Division of Mental Health must henceforward be a qualified psychiatrist.

Unfortunately, the first director under the new policy became the casualty of a change of governors. Parenthetically, it should be noted that this happens very often to state mental health directors. This is unfortunate, because continuity of good management is as important to a mental health program as it would be to any business of comparable size. And the size is considerable! In Missouri, for example, the present annual budget for mental health is on the order of $70 million, mainly for the payroll of some 9,000 employees in 20 institutions. Operations of this magnitude (and many states have far bigger programs) require top-level decision making by executives who are not only experienced in administration, but professionally skilled in public health psychiatry.

From a low-point in the late 1950's, Missouri's mental health program moved upward steadily through the 1960-1970 decade. Today, professionals in the field generally consider the Missouri program to be one of the most interesting and modern in the nation. This has been accomplished by a ten-year continuity of planning and programming made possible by the continuing support of the governor and legislature and the concern of an informed public. In all of this, the efforts of volunteers of the State Mental Health Association chapters have been extremely helpful. This high level of support provided the Division's top administrators and the Mental Health commission with what any policy makers must have in order to develop a successful program, an uninterrupted period in which to plan, put plans into operation, evaluate results and recycle the procedure, thus refining the program progressively toward increased effectiveness.

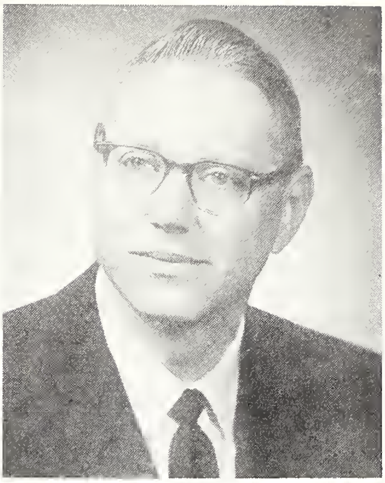
Two Main Goals

Missouri's revitalized mental health program has had two main goals from the start. One has been to shift emphasis from custodial care to the intensive treatment of patients. The other has been to expand the services of the Division and to deliver these services effectively to Missourians in all parts of the state.

Cost consideration is important. Missouri's new and vastly more effective mental health program is receiving exactly the same percentage share of the state's budget dollar as the old one did. This, of course, does not mean it is receiving the same number of dollars; new taxes have increased state revenues and the funds allocated to every operating division. In the case of the Division of Mental Health, however, much of the increase has been absorbed by inflation, which has notoriously raised costs in the hospital-care field.

All of this underscores the plain fact that a well planned mental health program based on the intensive treatment of patients produces more benefit and is less expensive, on the basis of results obtained, than a program based on wasteful custodial care.

Missouri's almost desperate need for expanded mental health services at the beginning of the 1960-1970 decade is indicated by Fig. 1. From 7,500 patients given treatment in 1960, this index rose to 36,000 in 1970, as each new service, hospital and clinic facility brought into operation by the Division almost immediately reached its case load capacity.



George A. Ulett, M.D.

While the Division's work load (measured by admissions) was increasing five-fold, however, its effective budget was only slightly more than doubled. This budget increase was used mainly to hire additional workers to staff the new facilities and expand services of the Division. But inflation greatly eroded the dollar power for these purposes, and the total staff, from 1960 to 1970, was increased only by a factor of slightly less than two.

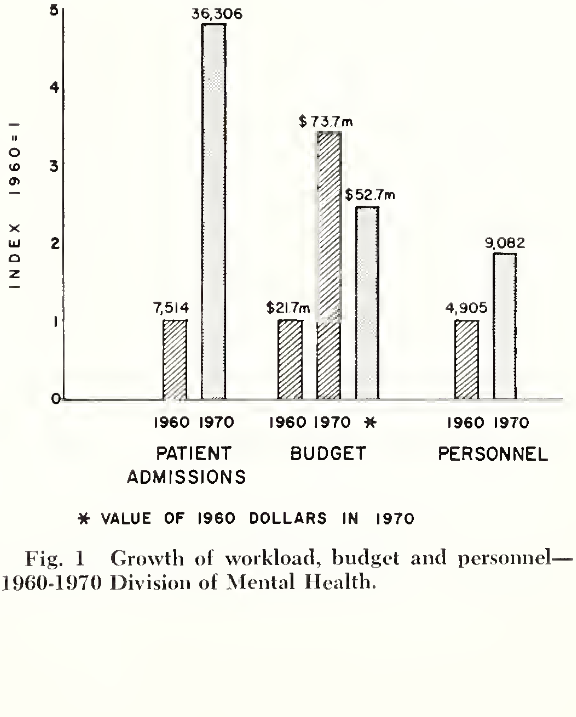


Fig. 1 Growth of workload, budget and personnel—1960-1970 Division of Mental Health.

Professional Workers Essential

The ratio of staff-to-patients in Missouri's state hospitals is still substandard, even though it has markedly improved over the past ten years. But it is important that staff increases have been concentrated in the category of professional treatment personnel—those mental health workers, including psychiatrists, directly responsible for getting the patient well and out of the hospital.

Budget limitations have not been the only obstacle to enlarging and upgrading the quality of the Division's staff. In 1960, Missouri, among the 50 states, notably lacked reserves of mental health professionals to be hired at any price. This problem was taken into account by the planners, and, to a considerable extent, Missouri's manpower shortages have been mitigated through effort concentrated along five, well defined lines: (1) work-study programs including career psychiatric training, (2) successful recruitment of trained psychiatrists, (3) patient placement programs (in nursing homes, foster homes, etc.), (4) improved management programs and (5) phasing in the Missouri Standard System of Psychiatry, based in the Division's Computer Center at the Missouri Institute of Psychiatry.

HOSPITALIZED MENTALLY ILL

Before 1960, the outlook for the recovery of patients suffering from major mental illness in Missouri's state institutions was bleak. Five ancient hospitals, designed for a safe capacity of fewer than 6,000 patients, held twice that number (Fig. 2).

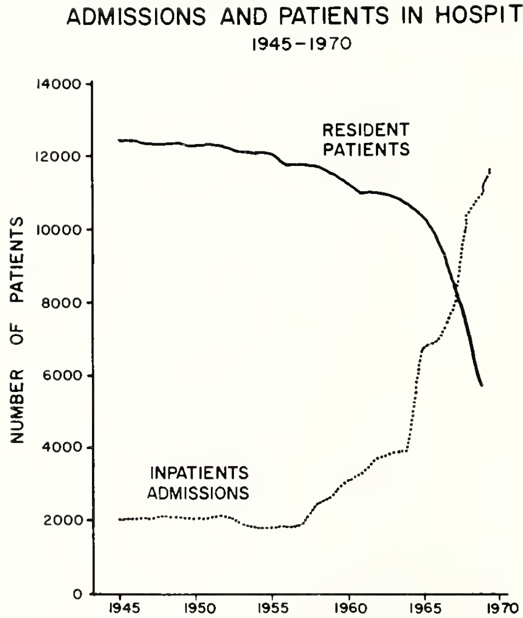


Fig. 2 Decrease in custodial care, state hospital beds and increase in inpatient hospital admisson workload.

This overcrowding was coupled with a disheartening shortage of qualified treatment personnel, a combination that resulted not only in the neglect of patients in the hospitals, but the effective neglect of unrecorded thousands of mentally ill persons in the community outside.

In 1960, the Division had only 17 psychiatrists to serve 11,252 patients in these fine institutions. All the other psychiatrists in the state, moreover—those in private or university-associated practice—were concentrated in St. Louis, Kansas City or Columbia. At this stage, recruitment to rural areas was out of the question, and it would have been folly to begin building clinics and mental health centers in outstate areas, as badly as they were needed.

The Regional Mental Health Centers

As an intermediate step, a plan was developed to create three prototype 100-200 bed Regional Mental Health Centers. Each would offer intensive psychiatric care and each would serve one third of the state until staffing difficulties could be overcome and more units could be brought into operation.

The sites of the three proposed Centers were Kansas City, Columbia and St. Louis. This was so that they could begin operations immediately in cooperation with psychiatric residency training programs of university medical schools. Not only would this help provide an operating staff for the units themselves, but it would establish the all-important teaching and training function that the Division must rely on to supply its expanding needs throughout the state.

The plan for the three Regional Centers was presented to the Missouri Legislature in 1963 and was promptly approved for funding. A new federal law, PL 88-164, had just made federal funds available on a matching basis for the creation of community mental health facilities. This new law had been anticipated by Missouri's planners. In fact, the Mid-Missouri Mental Health Center at Columbia, which opened in January, 1966, was the first in the nation to be funded under provisions of the new federal law. It was followed in March, 1966 by the Western Missouri Mental Health Center at Kansas City and in January, 1967 by the Malcolm Bliss Mental Health Center in St. Louis.

The immediate effect of these three Centers was dramatic. Thousands of Missourians who needed treatment were at last able to get it. This is indicated by the fact that the number of admissions to state-operated hospitals rose from 3,000 in 1960 to roughly 12,000 by 1970. At the same time, the inpatient populations of the five ancient state hospitals began, for the first time in their history, to show a significant decline! By 1970, they had dropped approximately 50% (Fig. 2) to a point at which each hospital was operating at only a little above its rated capacity.

Length of Stay Drastically Cut

This reduction was accomplished by a combination of the following factors: more intensive care for patients as newly-trained mental health workers joined the hospital staffs; the transfer of suitable patients to nursing, boarding and foster homes; and an increasing emphasis on early return to the community as a basic goal of inhospital therapy.

At the beginning of the decade, the median length of stay of newly-admitted patients in all Division hospitals was 93.2 days. By 1969, this had been reduced to 28.7 days (Table 1). At the same time, more and more Missourians were receiving mental health services.

TABLE 1

LENGTH OF STAY OF PATIENTS RELEASED DIRECTLY FROM HOSPITALS BY FISCAL YEARS 1962-1969

Fiscal Year of Admission	*Total Releases*	*Median Length of Stay (In Days)*
1962	4,635	93.2
1963	3,883	87.6
1964	4,146	63.7
1965	5,627	43.5
1966	5,541	38.9
1967	6,224	29.2
1968	7,662	24.0
1969	8,646	23.6

Unfortunately, the progress of the overall Missouri program has recently been slowed by severe budget difficulties, including especially a shortage of patient-placement funds. The transfer of suitable cases to approved nursing homes, after achieving a stabilized condition through medication, has been virtually suspended.

It is generally recognized that an accumulation of chronic (principally senile) cases in hospital wards must inevitably reduce the amount of therapy available to those patients whose conditions *can* be improved. If present budget limitations hold, this will result in months of unnecessary hospitalization for many patients and, as a vicious cycle regenerates, in millions of dollars of needlessly increased cost.

With full funding of the programs as originally planned, it would be possible to reduce the population of Missouri's state hospitals to less than 1,000 patients each and to maintain this level indefinitely. This comparatively small number of patients in any of the hospitals at any given time would allow for a greatly increased turnover with quantum increases in the number of patients receiving short-term intensive therapy and returning to useful lives in the community.

Community Mental Health Program

Mental illness occurs quite irrespectively of the haphazard location of old hospitals built under the "asylum" concepts of the 19th century. To get at the problem realistically, it is essential to deliver mental health services where they are needed most and when they are needed most, which is to say at the earliest sign of trouble.

Under the Missouri plan for Community Mental Health Programs, the state has been divided into 36 mental health areas (Fig. 3). The original timetable called for the establishment of at least basic services in each of these areas by 1970, but this schedule has been upset by the unforeseen budget restrictions referred to earlier. If the budget is restored to previously estimated levels, the goal can still be achieved by the end of 1971.

Despite the budget setback, the program has made impressive progress. In 1960, Missouri had almost no community mental health services. By 1970, one-quarter of the Division's budget was being spent for services at the community level and the Division now has a special section responsible for the development of community mental health services.

The Division's determination to deliver needed services to all Missourians at the community level is indicated by the steady rise in the number of persons receiving outpatient care—from 1,300 in 1960 to nearly 14,000 in 1970 (Fig. 4.).

The Division also has sought to broaden participation in programming by sponsoring legislation that created the Governor's Advisory

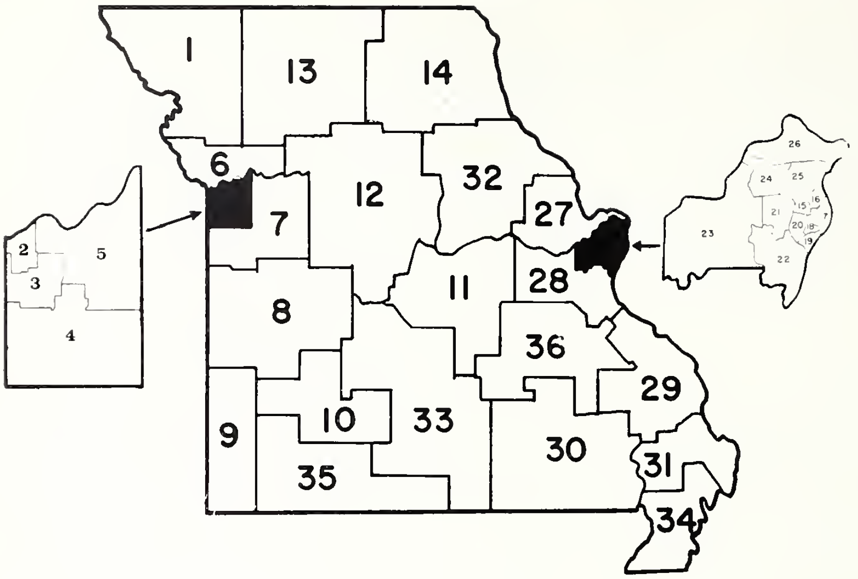


Fig. 3 Missouri's 36 Community mental health service areas.

Council on Mental Retardation and Community Mental Health Centers.

Federal Funds Available

Under the Missouri plan, the term Community Mental Health Services does not necessarily infer facilities that are owned and operated by the Division. Under U. S. Public Law 88-164, already referred to, federal funds are now available on a matching basis to communities, large and small, for the purpose of building and operating their own facilities. In many cases, the Division's role has simply been to help a community with its application for these federal funds and its plan for their use. In fact, it has been part of the plan to use Division resources to spark community action wherever possible and, when one community has been successfully encouraged to provide its own mental health services, to shift the Division's resources to another community in need. Thanks to these efforts, Missouri now ranks in the upper one third of all the states receiving grants under the federal law, and by 1969, it led the seven states of its own Region VI in this respect.

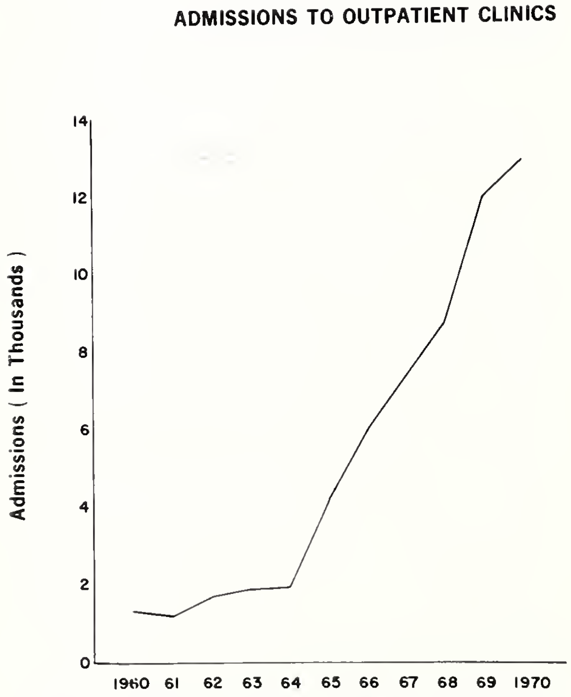


Fig. 4 Admissions to Division of Mental Health Outpatient Clinics.

Continuously backing up all the new facilities, however they may be funded, are visiting teams of mental health professionals on regular "circuit riding" assignment from the appropriate geographic sections of each of the five state hospitals. Finally, it should be noted that underlying the development of community centers throughout the state has been the steady expansion of operations at the three Regional Mental Health Centers referred to earlier. The programs carried on in these institutions have resulted in a steady buildup of Missouri's reserves of trained mental health workers. This has permitted even more rapid progress than expected toward the Division's fundamental goal of assuring that adequate community services are extended to all the people of the state.

Mental Retardation

In 1960, Missouri's only state-operated facilities for the mentally retarded consisted of two wretchedly overcrowded and understaffed state school-hospitals, one at Marshall-Higginsville and the other at St. Louis. Together, they provided a disgracefully low level of custodial care for fewer than 2,600 of the state's 150,000 mentally retarded persons, and each institution had a waiting list so long as to be hopelessly unrealistic. Planners of the 1960-1970 decade began by scrapping proposals on the books to build yet another 1,000-bed "warehouse" and took off in a different direction altogether. The new goals were prompt adequate service, better geographic coverage of the state and *minimal separation of child and parents.* This concept rejected the notion that the Division must function only as a lifelong "keeper." Instead, it set the goal of seeking all kinds of ways to help each child achieve his greatest potential, including sheltered family life in the community wherever possible.

In 1965, the Governor recommended to the Legislature a Division-sponsored plan to build nine small (40-bed) Regional Clinics to offer a high level of other-than-custodial services to retarded children and their families. These services were planned to include day care, the professional evaluation of each child's potential, family counseling on a continuing basis and special educative programs to be made available to thousands of children. Eight of these Regional Retardation Clinics are now in limited operation and the ninth will be completed this year. The program is not yet in anything like full operation, but there are enough data to gauge results.

The number of new cases that can be served in a year has climbed dramatically (Fig. 5).

Meantime, overcrowding at the two big school-hospital units has dropped by 234 patients. A population below 1,000 in both of these institutions now appears possible. The long waiting lists are disappearing, and the personnel-to-patient ratio has improved from 1:3 to 1:2.

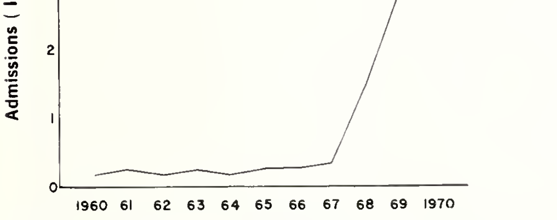


Fig. 5 Admissions to facilities for the mentally retarded, Division of Mental Health.

New Techniques

New treatment and rehabilitation programs have been brought into use at the school-hospital units. They include operant conditioning, psychopharmacology, talking typewriters, etc.—therapies making possible the discharge of patients who once would have been lifelong state charges. The hospitals are cleaner, children get better care, former crib cases now feed and toilet themselves and many more patients are being trained for ultimate discharge to the community.

As in other phases of the Division's programming, the small, regionally located, early care units are reducing the workloads in the long-term institutions, permitting the replacement of old policies of custodial care with new methods of treatment and rehabilitation. Full restoration of the damaged brain is not yet possible, but the Division is stepping up its research efforts to find better answers to the problems of mental retardation.

ALCOHOLISM

Alcoholism is responsible for much human misery, for death and disfigurement in countless automobile accidents and for a staggering amount of economic loss annually throughout Missouri. The state has 180,000 chronic alcoholics, and the number is growing. Nevertheless, the provision of state-operated treatment facilities specifically for alcoholism has been a comparatively recent development.

In 1967, Governor Hearnes recommended that the legislature vote funds for a special Division-planned program. Funding was approved and eight Alcoholism Treatment Centers were opened in existing Division facilities. Five of the Centers are 40- to 60-bed units in the state hospitals and three are 20-bed units at the Regional Mental Health Centers in Kansas City, Columbia and St. Louis.

Each of these units is directed by a psychiatrist who supervises the medical, psychiatric and social aspects of the program. Alcoholics enter these units for an average inpatient stay of 40 days, but there are follow-up services after the patient returns to the community. As an inpatient, each alcoholic undergoes a brief drying-out period and then receives short-term intensive therapy, phasing into group therapy, activities therapy and involvement in patient government and the AA program.

The "Detox" Centers

Missouri also has two Detoxification Centers—one in St. Louis and the other in Kansas City. The former is one of the first in the nation and has served as a model to many other cities. These Detoxification Centers, which are partly supported by community funds, attack a different aspect of the problem by serving to free police departments and courts of endless man-hours and costs once wasted on useless punitive routines. Detoxification Center programs for other Missouri communities are in the planning stage.

Statistical evaluation of the alcoholism and detoxification programs is difficult because they are new. Follow-up studies so far indicate that 70% of all the patients treated have not required readmission for a year following ultimate discharge from the program. In 1969, the eight Alcoholic Treatment Centers treated 1,120 individuals as inpatients and 1,834 as outpatients. This compares with a total of 442 patients admitted to the state hospitals for alcoholism in 1962, when there was no specific program for the disease (Fig. 6).

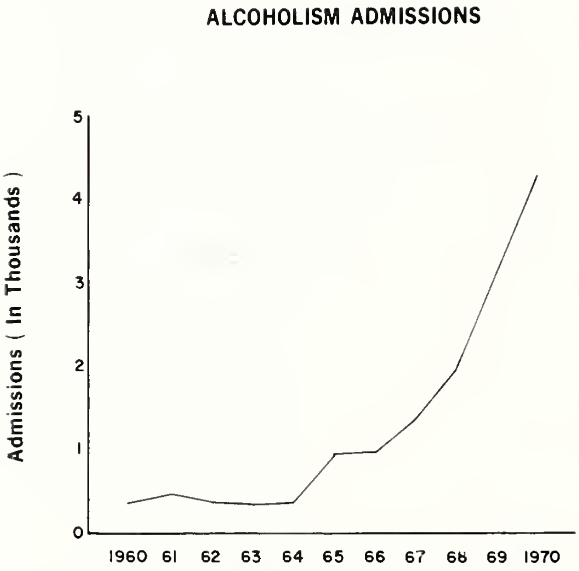


Fig. 6 Division of Mental Health alcoholic admissions.

Missouri's programs are creating a cadre of experienced consultants and information specialists who will become increasingly important as more Missouri communities plan local alcoholism treatment programs in cooperation with the Division.

Drug Abuse

Drug abuse is an ancient social problem that has explosively acquired new and altogether alarming dimensions. It, too, has been added as a specific target area to the Division's expanding range of services. The Division's effort centered in St. Louis is still a pilot program developed by the Missouri Institute of Psychiatry with limited funds from the state and matching grant funds from the National Institute of Mental Health. A prime object of the program is to test and develop methods of treatment here that can later be applied to the problem statewide.

The St. Louis drug abuse program has two main divisions—the Methadon Program and the Drug-Free Residency Program. Methadon is a synthetic drug administered from the dispensary of a store-front clinic to ex-heroin addicts. The clinic is in a high-drug-use area of the city.

Addicts receiving daily doses of Methadon under the program are temporarily freed of the bodily craving for illegal drugs and are able to lead reasonably normal lives, including holding jobs. The outstanding advantage of this to the community is crime abatement, since heroin addicts ordinarily have to resort to burglary, robbery, prostitution or drug pushing daily to get the money to buy narcotics. The Division's Methadon Program goes beyond this, however, by providing regular counseling and group therapy led by ex-addicts. Patients in the program are encouraged to take the next step, which is to give up all drugs entirely.

Drug-Free Community

The other half of the St. Louis-based pilot program is the Drug-Free Therapeutic Community in a converted residential hotel now called Archway House. Here about 100 patients live together and reinforce each other's determination to "stay clean" through frank mutual discussion of problems, temptations, frustrations and the like. Resident counselors at Archway House, like those in the Methadon Program, are themselves ex-drug addicts.

The St. Louis pilot program is able to treat only about 200 patients a year, and there are long waiting lists of drug users anxious to receive treatment. Nevertheless, counting only the persons now enrolled in the two parts of the program, the immediate practical benefits to the citizens of Missouri are enormous. Applying a formula used by Mayor John Lindsay of New York in which each ex-addict no longer "hustling" reduces crime by $50,000 per year, even the pilot program of St. Louis is paying annual dividends to the community of at least $10 million.

EMOTIONALLY DISTURBED CHILDREN

The enormous problem of some 100,000 emotionally disturbed children of Missouri was not even recognized as such until 1957. In that year, the Division was directed by statute to provide "children's psychiatric services." This meant, in the main, simply putting an end to the practice of mingling disturbed children with psychotic adults on custodial wards of the old state hospitals. No attention was directed to the needs of vast numbers of disturbed children in the community who were then receiving no treatment at all.

The need for children's services at all levels was acute in 1960. The Division, however, knew that it would be a dangerous waste of resources at that point to build new, long-term hospital facilities for seriously disturbed youngsters without first beginning to create manpower reserves of the professional workers who would be needed to staff them. Accordingly, services were phased into operation at each of the newly-opened Regional Mental Health Centers in Columbia, Kansas City and St. Louis. These services now include 24-hour emergency service, short-term inpatient care, outpatient care, partial hospitalization (either day or night care) and consultation services to schools, juvenile courts and other community agencies plus a variety of educational programs directed toward public school personnel, social agencies and parents.

As all these programs were being developed at the Regional Centers, psychiatrists and other professionals were being trained in increasing numbers to take their places in institutions still in the planning stage.

Missourians can be proud of the work done in these units because they pioneered in developing what national mental health planners only now are beginning to recommend as a practical, step-by-step approach to the massive problem of mentally ill children everywhere.

Fig. 7 shows the growth of services, both inpatient (A) and outpatient (B), to the emotion-

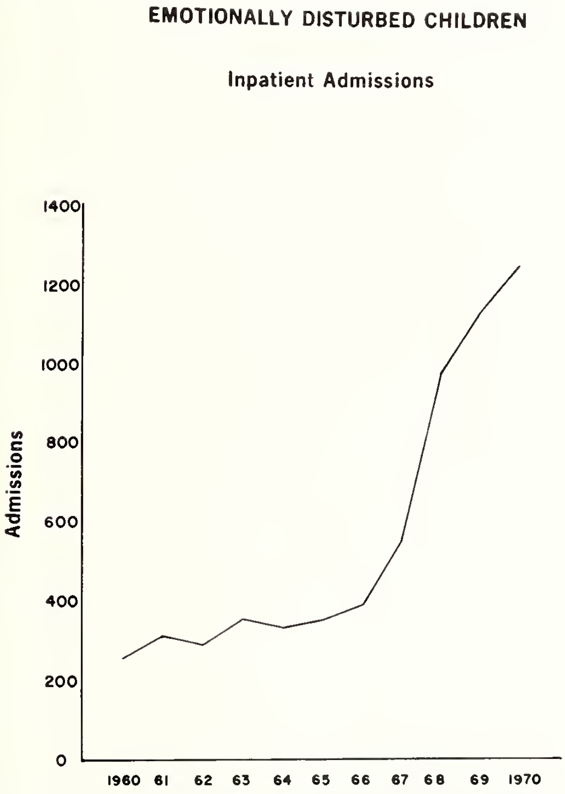


Fig. 7-A Admissions of emotionally disturbed children to Division of Mental Health Inpatient Services.

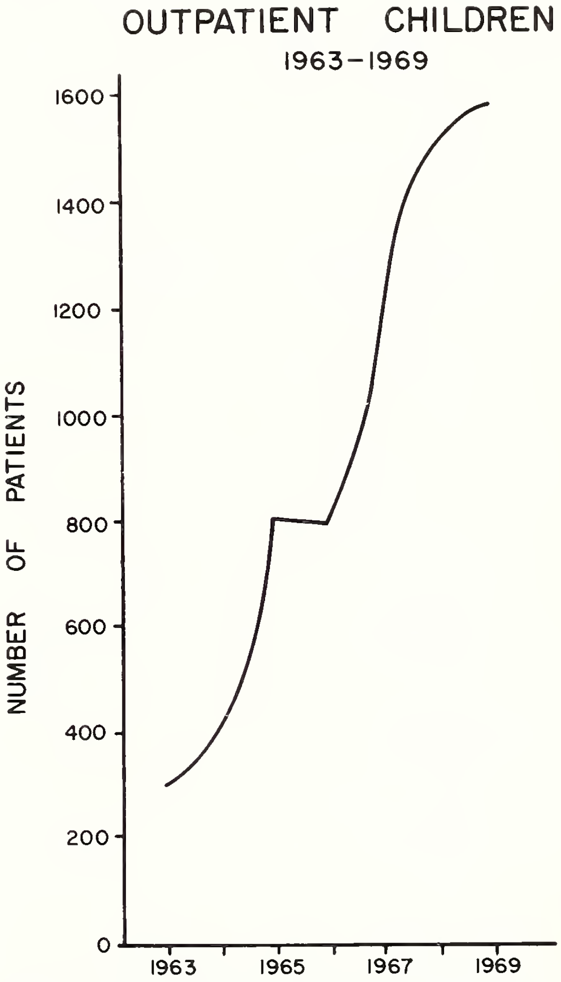


Fig. 7-B Admissions of emotionally disturbed children to Division of Mental Health Outpatient Services.

ally disturbed children of Missouri over the last ten years. Much of this growth has occurred through services at the three Regional Mental Health Centers.

From the Regional Mental Health Centers and from revitalized programs at the state hospitals, the Division's services to children are now being expanded steadily outward to reach all 36 service areas of the state. This is being done in several ways. Community-sponsored mental health centers now in use or being built will make provision for special youth services in cooperation with the Division. Some services to mentally ill children also will be incorporated into the operations of the Division's nine Clinics for the Mentally Retarded.

Three Comprehensive Centers for Child Care

The greatest step forward, however, will be the completion of three new Comprehensive Centers for Child Care, each to serve one third of the state. These new units, to begin with, will substantially replace the state's antiquated facilities for long-term residential patients at the state hospitals. Long-term residency requirements may decline in the future as community consultation and preventive services are expanded, but psychiatric experience indicates that there will always be some children who simply do not respond to early, short-term treatment. For example, 15% of the children admitted to the Malcolm Bliss Mental Health Center in St. Louis in 1969 had to be transferred to long-term residential care.

Recognizing this fact, Gov. Warren Hearnes recommended and the 74th General Assembly voted the appropriation of $255,000 in the 1967-1968 budget to develop plans for modern comprehensive child treatment centers in the central, eastern and western parts of the state. In 1968, the Assembly authorized $3.8 million to construct the first of these at Fulton State Hospital to replace the old children's unit there.

New Look in Child Care Centers

The new child treatment centers will in no way resemble the forbidding and massive "confinement" institutions of the past. Each will consist of six buildings (school, preadmission school, gymnasium, living unit, recreation building and a combined administration building and outpatient clinic). These will be arranged around a central mall, with a playfield nearby.

The new Comprehensive Child Care units will provide greatly improved facilities for long-term patients, but they will in no way be limited to the use of this group exclusively. The units will have ample space for residential care, but they also will offer outpatient and day school programs, thus greatly increasing the number of children who can be treated at any one time. All will incorporate training programs for mental health workers specializing in services to children. Thus, within the foreseeable future, these units will provide three bases from which can develop a range of services for emotionally disturbed children that will include prevention and community services, special day care treatment, outpatient services, short-term diagnostic and intensive treatment inpatient units and long-term remedial and rehabilitative hospital services.

TRAINING OF PERSONNEL

Overcoming manpower shortages has been the greatest challenge to mental health programming in Missouri since 1960. Psychiatrists make up only 1.25% of the employees of the Division, but they are the activating element—the yeast—absolutely essential to making the entire operation work. Psychologists, psychiatric social workers, psychiatric nurses and others comprise a companion class of patient-care workers the small size of which is quite out of proportion to its great importance. The fact is that with adequate numbers of these mental health professionals, most hospital patients can be treated and returned within a comparatively short time to community life. Without an adequate number of professionals, the chances of recovery for any patient are drastically reduced and the taxpayers must face the certainty of upward spiralling costs for unnecessarily prolonged hospital care.

A decade ago, the Division was able to attract such limited numbers of these key professional workers that anything like adequate treatment of patients was impossible. Remedying this situation, therefore, became the immediate and high-priority objective of the planners of Missouri's revitalized mental health program. The results have been gratifying (Fig. 8).

The earliest step in this direction actually had been taken in the mid-1950's; this was a modest work-study program for social workers developed in cooperation with the schools of social work of St. Louis University, Washington University and the University of Missouri. This program permitted students to mix classwork with on-the-job training in state-operated institutions, and there were inducements to accept employment in the Division at the end of training. The program is still in operation, and its results over

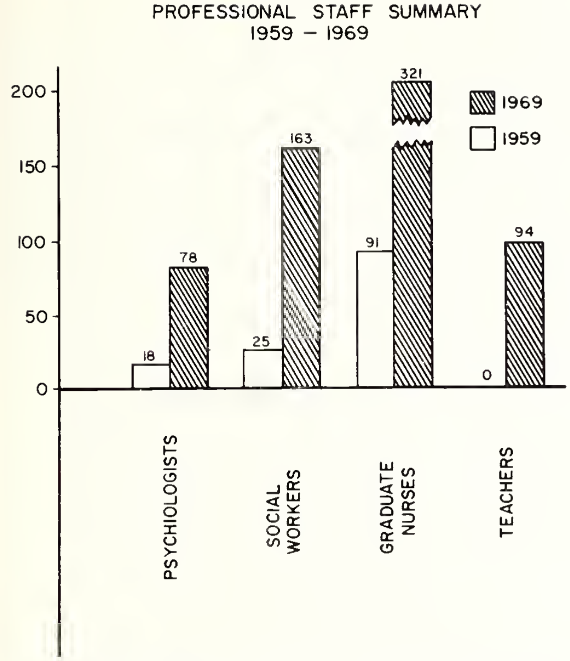


Fig. 8 Growth of Division of Mental Health professional services staff.

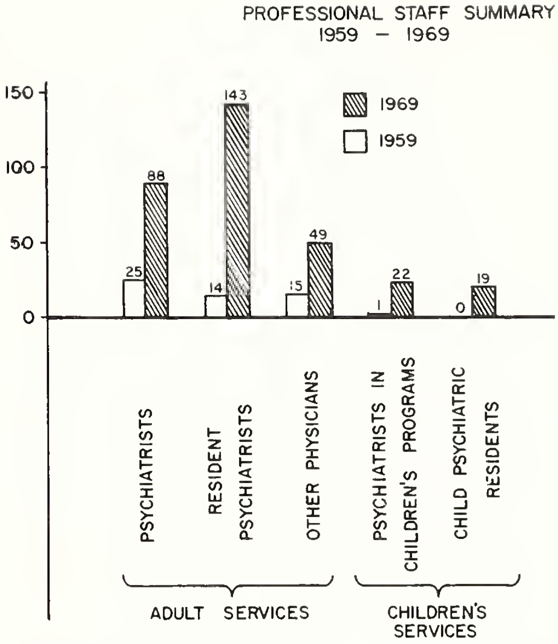


Fig. 9 Growth of Division of Mental Health psychiatric staff and residents.

the years have been so remarkable—a 600% increase in the number of social workers employed by the Division—that the work-training principle has since been extended to a number of other professional and para-professional disciplines.

Desperate Need for Psychiatrists

The hardest problem the Division had to face, however, was to increase greatly the number of its psychiatrists. In 1962, a career psychiatric residency training program was established by the Division with funds especially appropriated by the legislature. Residency training programs went into operation at the three Regional Mental Health Centers in Columbia, Kansas City and St. Louis—cities where there were medical school departments of psychiatry. The largest career residency program, however, was established at the Missouri Institute of Psychiatry (MIP) in St. Louis. In 1965, MIP became a Department of Psychiatry of the University of Missouri and now attracts residents to its training program from all over the world; these are promising young psychiatrists who obligate themselves to two additional years of service in the Division's institutions after completing the three-year national training requirement.

The direct result of all phases of the psychiatric residency training program has been to raise Missouri from nearly last place among the 50 states in 1960 to eighth national ranking in terms of the number of residents in training.

Doctors of Osteopathy

Unique in the nation in 1967, when it was founded, was a career residency training program for Doctors of Osteopathy. This program began at the Nevada State Hospital in cooperation with the Kirksville College of Osteopathy and Surgery and the University of Missouri School of Medicine. It has now moved to the Missouri Institute of Psychiatry in St. Louis. Graduates of the program (D.O.'s) are licensed by the same Missouri Board as M.D. graduates and are eligible to work as staff psychiatrists in the Division's institutions.

As a result of all these training programs, the number of staff psychiatrists in Missouri institutions has more than tripled in the last decade (Fig. 9), but quite apart from statistics on the numbers of men and women trained, the Division is proud of the quality of its training programs. All its hospitals are now accredited by the Joint Commission on Hospital Accreditation.

Research

Research always accompanies good training programs, and each reinforces the other. The federally-funded Joint Commission on Mental Health and Illness recommends that 5% of each state's mental health budget be devoted to research aimed at finding better treatment methods as well as investigating the causes of mental illness.

In Missouri, some research is done at each of the Division's major institutions, but the main thrust has been progressively shifted to the Department of Psychiatry of the University of Missouri School of Medicine at the Missouri Institute of Psychiatry (MIP) in St. Louis. This is acknowledged to be one of the most progressive and promising research and training operations in the nation.

MIP occupies the six-story, $9 million Louis H. Kohler building on the grounds of St. Louis State Hospital (Fig. 10). It was begun as a Division-operated research facility and became a Department of Psychiatry of the University of Missouri in 1965. Its programs are now operated jointly by the University of Missouri and the Division of Mental Health. The teaching and research staff of MIP hold University appointments, and the research is designed and performed under University auspices, assuring its scientific excellence.

Wards and Laboratories

MIP, apart from its administrative and service departments, is essentially divided into ward areas and laboratory areas. In its nine wards, the 200 patients are those selected for special study and treatment from among 36,000 patients annually treated in the Division's major treatment facilities. The emphasis in treatment research is generally on patients who have proved resistant to treatment in other units. Each ward has its own staff offices, dining facilities and research areas.

The laboratory area contains three EEG labs, an evoked potential lab, a human behavior lab, a sleep lab and a clinical psychopharmacology and neurophysiology section. A large, automated clinical pathology lab provides support to all the research-oriented laboratory sections and also does routine blood chemistry and hematology tests for all newly-admitted patients to the Division's hospitals. Storage facilities are provided for laboratory animals, and a biochemistry section for investigating the chemistry of mental illness was opened this year.

The scientific library contains some 7,000 volumes, subscribes to more than 400 periodicals and offers special services to the Division's entire staff.

With these facilities and programs, MIP already has earned a place of distinction in the field of psychiatric research. Its achievements so far, however, may merely be a prologue to what is to come. The Institute's magnificently equipped Computer Center is in the forefront of what promises to be the century's third great revolution in psychiatry, following the introduction of Freud's theories and the use of psychotropic drugs. The Missouri Standard System of Psychiatry will be applied in all institutions. Pioneer work of major importance in this field is now being done at the Computer Center, which continues to provide support for all MIP

(Continued on page 823)

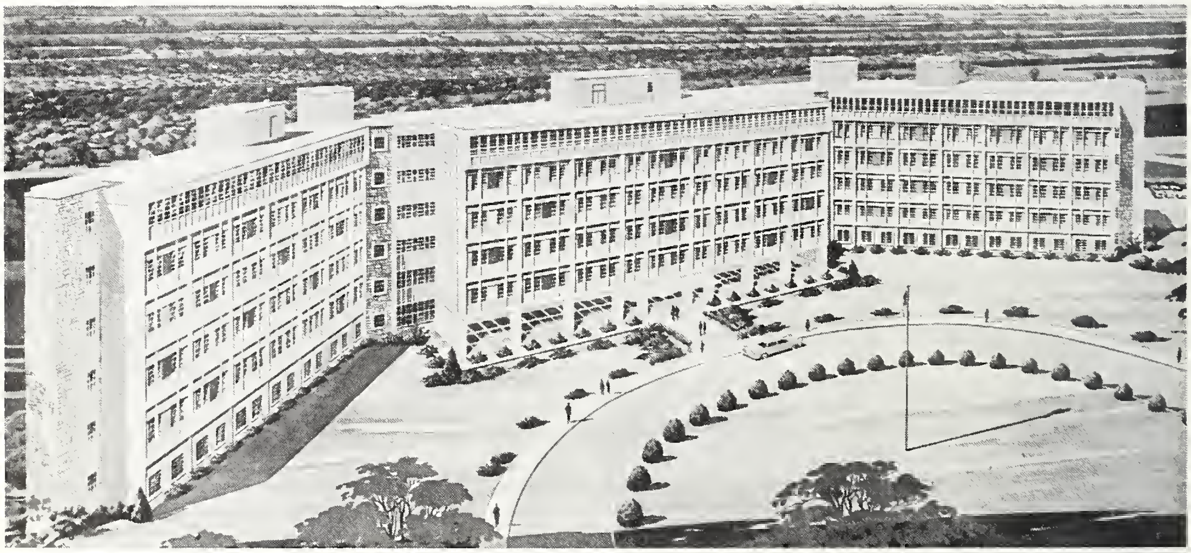
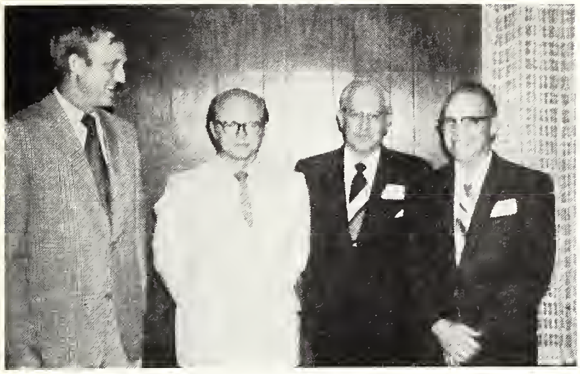


Fig. 10 Missouri Institute of Psychiatry, major research and training arm of the Missouri Division of Mental Health and home of the Department of Psychiatry at St. Louis of the University of Missouri School of Medicine.



(Left to right) M.U. Basketball Coach Norm Stewart, Dr. David D. Scherr and MSMA President Joseph L. Fisher are welcomed to the Ninth District Councilor Meeting in Rolla by Councilor E. A. Stricker, St. James.

Councilor E. A. Stricker and Mrs. Norm Stewart enjoy the comments of Coach Stewart, a featured speaker at the meeting. Mr. Stewart gave a preview of the M.U. Tigers' activities for the 1970-1971 basketball season.

Coach Norm Stewart Speaks to Ninth District

Missouri State Medical Association members and their wives from South Central Missouri gathered at the Carney Manor in Rolla on September 17 for a dinner and meeting of the MSMA Ninth Councilor District.

Special guests of the Councilor District physicians were athletic coaches from the area and their wives.

Guest speakers on the program included Joseph L. Fisher, M.D., St. Joseph, President of the Missouri State Medical Association; David D. Scherr, M.D., Assistant Professor of Orthopedic Surgery, University of Missouri-Columbia School of Medicine; and Mr. Norm Stewart, University of Missouri basketball coach. All were accompanied by their wives.

Ninth District Councilor E. A. Stricker, M.D., St. James, served as master of ceremonies for the program.

In a short talk, Dr. Fisher outlined various programs of the MSMA and discussed the new Peer Review mechanism which will be operated by the proposed Health Care Foundation of Missouri and will involve regional panels.

The President of MSMA also urged physicians and others present to know their candidates and be active in the election processes of our state and nation.

Dr. Scherr discussed problems involving athletic injuries and answered a number of questions from physicians and coaches in the audience.

Coach Norm Stewart gave a short preview of the coming basketball season at the University of Missouri-Columbia. He pointed out that the Missouri Tigers face a major rebuilding program due to the loss of most of the key personnel on last season's team.

The MU coach also pointed with pride to the fact that by the 1971-1972 basketball season, the Tigers should be playing in the new all-purpose building on the Columbia campus. At the same time, however, he reminded those in attendance that the new facility will not place the Tigers ahead of other schools in the conference, but would merely allow Missouri University to "catch up."

Distinguished guests at the speaker's table included *(left to right)* Mrs. Claude W. Cooper and Dr. Cooper, Thayer, President of the South Central Counties Medical Society; Mrs. Joseph L. Fisher and Dr. Fisher; and Mrs. E. A Stricker.

Councilor Stricker introduced the following dinner guests: *(Left to right)* Mrs. Norm Stewart, Coach Stewart, Mrs. David D. Scherr, Dr. Scherr and Mrs. Martin M. Hart, Salem. Dr Hart, President of Mid-Missouri County Medical Society, was seated next to Mrs. Hart.

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RICHARD L. WIELER, J.D. *and*
LESTER E. WOLCOTT, M.D., ***Columbia***

Medical-Legal Aspects of Disability Evaluation

Part III—Social Security Administration, Disability Insurance, Vocational Rehabilitation Agency

Since disability is basically a legal, rather than a medical concept, the goal of this informative paper is to aid the physician in understanding the legal theories and practices behind compensation for injuries in order to perform the role which the patient and the public demand of him in a legal proceeding. This detailed discussion of legal aspects as they are specifically related to the situation in Missouri should prove to be of value to the physician whose patient becomes involved in litigation. Mr. Wieler is an Assistant Attorney General, State of Missouri, and Dr. Wolcott is Professor and Chairman, Department of Physical Medicine and Rehabilitation, University of Missouri School of Medicine.

SOCIAL SECURITY ADMINISTRATION

The Federal Government also is involved in the concept of disability through the Social Security Administration. Social Security benefits are available to a worker or person impaired since childhood, if he meets the statutory definition of disability and is eligible under the law. 42 U.S.C.A. §416, as recently amended, defines disability as *inability to engage in any substantial gainful work because of a physical or mental impairment which has lasted, or is expected to last, for 12 months or longer.* There also is a provision for people whose vision is no better than 20/200 with glasses, or whose visual field is 20 degrees or less.

Initial determination of disability is made by a state agency (Division of Vocational Rehabilitation in Missouri) with provisions for review within the Department of Health, Education and Welfare. Adverse decisions by the Secretary may be appealed to a federal district court. The statute says that the applicant has the burden of proving disability by such evidence as the Secretary may require.[6] The Eighth Circuit (Missouri is in this circuit) has held that the claimant must show not only that he is no longer able to perform his usual occupation, but, also, that his impairments are so severe as to prevent him from engaging in *any* form of substantially gainful employment, including work requiring lesser physical or mental capacity. A majority of the circuit courts have held that the Secretary must show the claimant is able to engage in substantially gainful activity. Generally, these courts hold that the claimant can establish a prima facie case by producing evidence of what he has done in the past, his present incapacity for that same type of work and his lack of experience or training for any other type of work. This can be done by medical testimony of disability plus his own corroboratory testimony.

The courts also have held that subjective elements must be considered in determining the existence of disability in disability benefits cases. Along with the clinical findings of treating or examining physicians, elements to be considered are (1) diagnosis and expert medical opinions on subsidiary questions of fact, (2) subjective evidence of pain and disability testified to by claimant and corroborated by others and (3) claimant's educational background, work history and present age. A Missouri court has ruled (Ellerman vs. Fleming, 188 F. Supp. 521 D.C. Mo. 1960) that the statute is concerned not with the average man of ordinary and customary abilities, but with the particular person who may claim its benefits. In determining the right of claimant to disability benefits, his background, education, training and age become pertinent to his undisputed physical and mental condition.

The Social Security Administration is not concerned with the cause of impairment, but only with whether it meets the statutory definition of disability. Therefore, in preparing a report for a patient who is trying to obtain disability benefits, the physician should concentrate on describing the degree of impairment and analyzing its effect on the patient's working capabilities. All findings should be within the realm of "reasonable medical certainty." A report which is not well written, complete, honest or impartial may work to the claimant's detriment. The physician should again remember that the final decision will be made by the agency or the courts and his expert medical opinion will be accorded little weight unless it is knowledgeable, honest and impartial.

Disability Insurance

Another large area in which the term "disability" is important is the insurance industry. In practically all policies, including both accident and health policies, as well as disability clauses of life insurance policies, a precise description of the kind of disability for which benefits will be paid is accomplished by specifying that the insured disability must, with certain exceptions, meet definite requirements in regard to (1) degree, (2) duration, (3) cause and (4) time of inception.

The degree of disability insured is usually "total." In a typical policy, this is defined as a disability that prevents the insured from engaging in "any" occupation, performing "any work for compensation or profit" or a disability that prevents the insured from performing any and every duty of "his" occupation. The policy also may provide that benefits will be payable only if the insured is "confined to the house" and "under regular care of a physician." The duration of disability is a consideration apart from its degree. Some policies insure only against permanent disabilities; others cover disabilities of various specified durations. Some policies insure against disability regardless of its cause, while others are restricted to disability caused by accident or certain specific diseases. Disability, or its cause, must occur after the effective date of the policy and usually before another specified date, nominally the 55th, 60th or 65th birthday.

Specific exclusions usually include (1) disabilities intentionally self-inflicted, (2) those received in war or insurrection and (3) those caused by occupational injury compensable under workmen's compensation or similar law. Most policies provide that the insurer's liability is not created until proof of disability has been submitted in accordance with the policy provisions.

If the claimant and the insurance company fail to reach agreement, the controversy can be taken into court. Here, again, the physician's role is that of an impartial medical expert. His report should be well grounded in fact and based on "reasonable medical certainty." The claimant has the duty of showing that his injury is compensable under terms of the policy. In most courts, total disability is defined as inability to carry out the duties of any work or profession for which the claimant may be fitted by education, training or experience. The test of occupational disability is whether or not the insured is able to carry out the substantial and material acts necessary to the conduct of his business or occupation in the usual and customary manner. Where the policy declares that the disability must be "permanent," the claimant does not have the burden of proving conclusively that he will be disabled for the rest of his life. However, he must show that his disability, as far as it is possible to ascertain at the time, will continue indefinitely. The physician's role in this process is the same as it is for any personal injury suit, that of impartial medical expert.

Vocational Rehabilitation Agency

Brief mention is made at this point of another agency concerned with an aspect of disability, the Office of Vocational Rehabilitation. These agencies were set up in the states in response to a federal statute which proposed to match funds with the states, the monies to be used to train those with vocational handicaps for useful and sustaining jobs in spite of their physical limitations. The underlying philosophy is that those who have been successfully trained are no longer a burden to society, but fully productive members. Accordingly, state agencies have been set up to administrate these funds. Decisions as to how the money shall be spent are based on the agency's determination of (1) eligibility (Has the person suffered an impairment which has reduced or destroyed his employment possibilities unless he receives some training?) and (2) feasibility (Will training substantially improve his chances for employment?). Money may be spent on anything from a college education to a new wheelchair. Some things, like maintenance payments, will not be given unless the claimant can demonstrate personal need.

Unfortunately, these agencies have suffered

Space limitations have precluded publication of "Medical-Legal Aspects of Disability Evaluation" in a single issue. Therefore, this article has been published in three segments. Parts I and II appeared in the September and October, 1970 issues of this Journal, respectively.

The Bibliography has been continued from installment to installment.

The following outline will give the reader an overall view of this article:

Part I

Personal Injury Litigation

Part II

Workmen's Compensation

Part III

Social Security Administration, Disability Insurance, Vocational Rehabilitation Agency and Summary

from a lack of sufficiently trained personnel. Although much has been accomplished, more might be done if every applicant could be given a more thorough evaluation in terms of skills, intelligence and vocational goals. Applicants could then be better trained in areas wherein they have an interest and in which they may become competent.

In addition to his normal role as impartial medical expert, the doctor can perform a more basic service here, viz, to inform his patient of the existence of the Office of Vocational Rehabilitation when he thinks its services may be useful. The number of physicians who are unaware of the existence of this agency or who are unaware of its purposes is astonishing. Since the agency itself is somewhat averse to advertising, large numbers of vocationally impaired people, who are potentially eligible for benefits, go unaided.

In addition, exposure to vocational rehabilitation will graphically demonstrate the amount of financial independence which can be attained,[7] even by those with severe impairment. This knowledge can be very useful in persuading a patient to make maximum use of his remaining capabilities. Things may not look quite so impossible to a patient when he has knowledge of what others have done.

CONCLUSION

The above examples are the basic ways in which our society deals with disability. Generally, they suffer from two defects: (1) the impossibility of arriving at an accurate evaluation of disability and (2) the lack of a coordinated approach with realistic aims and goals. Anyone who studies the problem may conclude that there will never be a reliable and objective measure for evaluating disability which will ensure every injured person an adequate compensation for loss of earning capacity. There are simply too many subjective factors involved in determining how a person will react to his impairment, even though medical science can accurately diagnose the extent and depth of the impairment. Even liberal use of subjective elements will not enable us to arrive at an accurate prediction in the great majority of cases. Few people possess the range of knowledge and personal experience necessary to evaluate and weigh all these subjective factors. In light of this, it is surprising that our systems work as well as they do. Compensation for disability in this country consists basically of money payments based on arbitrary and imprecise standards, which leaves it up to the injured person to rehabilitate himself. In some cases, he does so with large sums to spare; in others, the award does not cover the cost of hospitalization.

Modern rehabilitative techniques demonstrate that most injured persons can be rehabilitated to useful and productive lives if a comprehensive program of social, psychological, vocational and physical rehabilitation is provided. Instead of advancing multiple, decentralized programs, which rely mainly on the dole, we should develop a coordinated system to take advantage of modern medical and social knowledge and to restore injured persons to jobs and financial independence. Those who could not return to their old jobs or be successfully retrained could be given work in sheltered workshops or retired on an adequate pension. The cost to society would be lessened since funds would not be wasted in a duplication effort, and the contribution of those formerly unemployable would more than make up for the funds spent. Finally, of course, there is the human factor. What value can be placed on the satisfaction of one who knows he is earning his keep?

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Foundation Chartered To Operate New Peer Review Mechanism

The Missouri State Medical Association and the Missouri Association of Osteopathic Physicians and Surgeons have jointly chartered a not-for-profit corporation, the Health Care Foundation of Missouri, for the purpose of operating a Peer Review Mechanism in Missouri. Incorporators of the Foundation are Joseph L. Fisher, M.D., President of MSMA; and C. A. Rohweder, D.O., President of the Osteopathic organization.

The decision to charter the Foundation came after a thorough study concerning peer review needs in Missouri by a special MSMA Committee chaired by Rae W. Froelich, M.D., Lebanon. The House of Delegates of MSMA, meeting in April of this year, had directed the council, by resolution, to promptly develop and implement a high quality state Peer Review Mechanism.

The not-for-profit Foundation will operate and provide monies for the Peer Review effort, establish a means of educating the public and the profession and act as a negotiating body. The Foundation's original board will be comprised of 21 members, 15 M.D.'s and six Osteopaths. Financing for the Foundation will be provided by Third Party Intermediaries and by the two involved Associations.

The new Peer Review mechanism which will be operated by the Foundation calls for five Regional Peer Review Panels in the state, each panel to be comprised of five Medical Doctors and two Osteopathic physicians. These will be conglomerate panels, covering the spectrum of medicine.

All cases submitted to the Peer Review Mechanism will first be scanned by a State Coordinating Committee so that those which have been submitted to Peer Review on the basis of a technicality may be eliminated. Wherever possible, this Coordinating Committee will correct, okay, and divert such cases to intermediaries for payment. Cases which the Coordinating Committee cannot approve or resolve will be sent to Peer Review panels in appropriate geographic areas.

Region A includes the 1st, 6th and 7th Councilor Districts of MSMA. Region B includes the 2nd and 5th Districts. Region C includes the 3rd and 4th Districts. Region D includes the 8th and 9th Districts and Region E includes the 10th District. Members of these panels have been selected and many panelists attended an orientation meeting in Columbia, September 20.

Plans call for the panels to review submitted materials at regular 30-day intervals. Panel members are to receive an honorarium for their services as well as mileage payments.

Major objectives of these regional panels include: (1) To interpret appropriateness of care as related to utilization and modality of treatment. (2) Control of costs. Are fees charged usual and customary? (3) To maintain quality of care at an appropriate level. (4) To utilize the foregoing elements to further education of both the public and the profession.

MSMA
News

As an adjunct to the Regional Panels, there will be one state committee for each medical specialty and these state committees will serve as an appeals mechanism for physicians and may also be used by the Regional Panels to determine appropriateness of treatment as well as quality of care.

Plans also call for the establishment of a special Judicial Committee to be composed of five Doctors of Medicine and two Doctors of Osteopathy. One Doctor of Medicine and one Doctor of Osteopathy from the State Board of Registration for the Healing Arts would serve as ex officio members of this committee which would have the duty of handling cases involving physicians who have been repeatedly reviewed for rendering inappropriate or substandard care, and in any case where the committee feels that disciplinary procedures are needed.

Retrospective evaluation is to be carried out as a continuing element of the program by use of patient, physician, provider and cost of illness profiles. Emphasis will be placed on "patterns of delivery" of medical care including both over and under utilization.

The first meeting of the Board of Directors of the new Health Care Foundation of Missouri was tentatively scheduled for late in the month of October. Plans call for the Peer Review mechanism to go into operation at an early date.

Among the purposes of the Health Care Foundation of Missouri as listed in the Articles of Incorporation are the following:

"To promote, develop, define and encourage the distribution of medical services and care by its

(Continued on Back of Page)

Foundation Chartered - Cont.

members to the general public, at a cost reasonable to both patient and the physician; to preserve unto its members, the medical profession, and the public, freedom of choice of both patient and physician, to guard and preserve the physician and patient relationship and its innumerable benefits; to protect the public health; to work and study in cooperation with all local, state, and federal prepaid insurance plans, assisting corporations serving similar functions, and other prepaid medical care plans that provide periodic and realistic budgeting for medical care and health services. and which subscribe to and provide for the freedom of selection and the guarantee of the physician-patient relationship in order further to promote the above purposes; to work with and provide information and assistance to the federal government, the state government, local municipalities and the general public, Chambers of Commerce, agricultural associations, trade unions, employers' and employees' organizations and other groups and individuals as to the fair and reasonable cost of adequate medical care. To work in conjuction with all licensed recognized health care providers or associations on local, state and federal levels; to promote these purposes and the purposes of those various organizations, namely; the development and promotion of the art and science of medicine, medical care and health services, the protection of the public health and the betterment of the medical profession."

Fourth Councilor District Meeting Set November 20

Roger O. Egeberg, M.D., Assistant Secretary of Health, Education and Welfare, and Joseph L. Fisher, M.D., St. Joseph, President of the Missouri State Medical Association will both be on the program for the Fourth Councilor District meeting on Friday night, November 20 at Stouffer's Riverfront Inn, St. Louis.

The Fourth Councilor District includes Franklin, Gasconade, Jefferson, Lincoln, St. Charles, St. Louis and Warren Counties.

All members of the medical profession are invited to attend the meeting.

Cooperation Urged

The American Medical Association is urging all medical societies to cooperate with the American Bar Association in a youth drug abuse education program for school children.

The AMA's Committee on Alcoholism and Drug Dependence said the programs planned by the ABA's young lawyers section will consist of three one-hour sessions with the children over a three-week period. State and local societies are to be contacted soon concerning the program.

Dr. Durward Hall Introduces His 'Extra Care' Plan

Durward G. Hall, M.D., member of Congress from Springfield, Mo., has introduced a two-part program in Congress that would provide catastrophic health insurance coverage for all Americans and enable 10 million persons to receive government financed basic health insurance policies.

Dr. Hall said that his proposal, known as "Extra Care," is designed to "guarantee" that no Americans, rich or poor, need ever "go bankrupt as a result of a prolonged illness or injury."

The program as envisioned by Dr. Hall would replace Medicaid and would involve state financing in instances where individuals had exhausted benefits under the federally sponsored policy. States would be asked to finance 15 per cent of additional insurance costs.

113th ANNUAL

SESSION April 15-18, 1971

In St. Louis

Fourth Annual Officers Meet Set In January

The Fourth Annual County Society Officer's Conference of the Missouri State Medical Association has been scheduled for Saturday and Sunday, January 30 and 31, 1971 at the Ramada Inn, Jefferson City.

The banquet speaker on Saturday night, January 30 at the Conference will be Richard Wilbur, M.D., who was recently named as Deputy Executive Vice President of the American Medical Association. Dr. Wilbur will also participate in other portions of the Conference program.

Complete information concerning the program will be announced at a later date.

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189 Physicians Pass Missouri License Test

A total of 189 physicians passed the Missouri Board of Registration for the Healing Arts licensing examination held in Jefferson City in September, according to an announcement from a Board spokesman.

The September examination was first given in Missouri since the recent Attorney General's Opinion that United States citizenship could not be a requirement for the licensing of physicians in the state.

The Board of Healing Arts accepted the Attorney General's opinion and dropped the citizenship requirement from its rules.

Another examination for licensing is scheduled during the month of December and a large number of applicants is expected to take this examination.

medical melange

Notes of interest from Here .... and There

William D. Mayer, M.D., Director of the Medical Center and Dean of the School of Medicine at the University of Missouri-Columbia, was elected chairman of the Midwest Great Plains Region of the Association of American Medical Colleges in October. The Midwest Great Plains Region includes 25 of the 101 medical schools in the United States. However, because many of the largest medical schools are located within this region, enrollment totals more than 50% of all medical students in the nation. Dr. Mayer also will serve as chairman of the Executive Committee of the Region.

Dr. R. N. Crews, Fulton's senior physician, celebrated his 99th birthday in September and has entered his 100th year. Dr. Crews, who retired from medical practice in December, 1969, lives with his son and daughter-in-law, **Dr. and Mrs. Carroll Crews.** Dr. Crews recently sold the office building at the location at which he practiced medicine for more than 50 years.

Dr. James Brown, Springfield, originator of Greene County's famous "Singing Doctors," and **Mr. Dale Freeman,** managing editor of the Springfield Newspapers, Inc., shared guest-speaker honors at a banquet during the Fall Convention of **Missouri Press Women** in Springfield on September 25. Dr. Brown reported that the Singing Doctors would perform at a district medical meeting in Waterloo, Ia. on October 20, the State Hospital Association convention in Jefferson City on October 21 and at the dinner on M.D. Day in Columbia on October 23. The Singing Doctors have raised more than $150,000 for loans to deserving medical students via their hilarious performances and records.—**Mrs. William M. Walker** of Springfield, President of the Woman's Auxiliary to the MSMA, was a guest at the Missouri Press Women's banquet on September 26 and spoke briefly to the group about the Health Careers Fair to be held in Springfield on November 5-6.

Dr. George X. Trimble, Kansas City, has been appointed medical director of the Computer FACT Bank, a project of the Missouri Regional Medical program. Dr. Trimble has been a consultant in information retrieval since 1967. He will continue to serve as medical director for the Catholic Hospitals Medical Education Foundation and as director of medical education for St. Joseph and St. Mary's hospitals in Kansas City.

Dr. Harry T. Evans, Branson, has retired after devoting 58 of his 83 years to the practice of medicine in Hollister and, since 1936, in Branson. In 1969, Dr. Evans received a special salute from his community when May 17 was designated as Dr. Harry T. Evans Day and he was presented a plaque for his outstanding community service.

Mr. D. Max Francis, administrator, has announced that the name of the Smithville Community Hospital has been changed to the Spelman Memorial Hospital in honor of the Late Arch Spelman, M.D. The change became effective on Oct. 1, 1970.

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The medical staff of Bothwell Memorial Hospital in Sedalia hosted a dinner on October 1 honoring the 50 years of general medical practice of **Dr. A. L. Walter.** Active in medical and civic affairs, Dr. Walter has served as president of the Pettis County Medical Society, chief of staff at Bothwell Hospital and chief medical examiner for the Pettis County Selective Service Board during World War II.

Dr. Alan Powell, a pediatrician, and **Dr. D. R. Mehlisch,** an oral surgeon, have been accepted for membership on the medical-dental staff of the Independence Sanitarium and Hospital.—**Dr. Robert W. Buben,** formerly of Kirksville, and **Dr. Dale Burton** from the U.S. Air Force are now practicing medicine in Hannibal. Dr. Buben is associated with Drs. **Merrill J. Roller** and **Thomas J. Fischer** and Dr. Burton is a member of the staff at the Hannibal Clinic.

Dr. John W. Berry of the Washington University School of Medicine, St. Louis, is one of four U. S. physicians whose comments on heatstroke treatment are featured in the October 5 issue of *Modern Medicine.*—**Dr. R. R. Hannas,** Kansas City, a specialist in emergency medicine, and **Dr. Hugh Chaplin,** hematologist and professor of medicine and preventive medicine at Washington University School of Medicine, are featured in two separate articles in the September 15 issue of *Patient Care.*

Dr. David G. Hall, professor of obstetrics and gynecology at the University of Missouri School of Medicine and department chairman at the Medical Center, has been named chairman of the medical advisory committee of Planned Parenthood of Central Missouri, Inc.—**Dr. Donald B. Peterson,** superintendent of the Fulton State Hospital, has accepted a position on the Northeast Missouri State College Law Enforcement Education Advisory Council.

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WASHINGTON

The American Medical Association emphasized that the quality of medical care should not be sacrificed for the sake of economy in government health care programs.

Dr. William O. LaMotte, Jr., of Wilmington, Del., chairman of the AMA's Council on Legislation, repeatedly stressed the importance of assuring high quality care in testimony at a Senate Finance Committee hearing on proposed changes in Medicare and Medicaid.

He also pointed out the advantages of the AMA's plan for review of physicians' services aimed at holding down costs over an alternative proposal before the committee. The AMA supported a provision of the proposed legislation that would provide for physical therapy services but opposed including chiropractic services under Medicare.

Dr. LaMotte said that there should be pilot projects before a "Health Maintenance Organization program is started nationwide. A HMO would provide both hospitalization and physicians' services for medicare patients for a set per capita amount.

"There are questions regarding in-fact cost savings, as well as the quality of health care which may be provided when there are economic incentives to providers to reduce utilization," the AMA spokesman said. "We wish to assure that Medicare patients uniformly receive the best quality care.

"To this point of quality care, we have one additional concern. As defined in the bill, the HMO may be a 'for-profit' organization and one managed, controlled and operated by lay individuals. Under such circumstances, the incentive for profit and/or lack of the basic essentials of knowledge, training and experience in medical matters could result in the patient being furnished less than the optimum of quality care. To avoid such a result, we recommend that organizations delivering health care should be under the control and guidance of medical personnel."

Dr. LaMotte also questioned the desirability of a provision that would restrict payments to institutions.

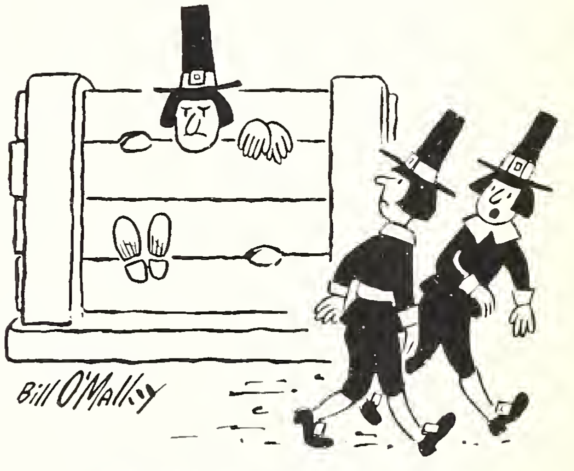
"Will this section create different classes of services based upon the ability or desire of patients to pay for additional services?" Dr. LaMotte asked. "A goal of Medicare was to make available to all over-65 persons the same level of health care available to other individuals. Has that goal now been changed?"

He assured the committee that the nation's physicians as a group "share the concern of the public and the Congress" concerning rising health care costs. But, he said, the AMA must oppose a provision that would substitute an arbitrary statutory limitation on physicians' fees for the "reasonable" fee now allowed. He said cost factors were too complex for such a simple solution and that the arbitrary limitation would make the medical profession the only sector of the nation's economy under price or wage controls.

As for utilization or peer review, Dr. LaMotte said the AMA objects "most forcefully" to a provision of the pending legislation that would have non-medical groups act as review teams and pass judgement on medical services.

Following Dr. LaMotte's testimony, the committee modified somewhat the professional review amendment sponsored by Sen. Wallace F. Bennett of Utah, second-ranking Republican on the committee, after he earlier heard an AMA spokesman advocate the peer review principle.

The modified version relaxed a requirement for preadmission clearance to hospitals for elective surgery to leave the matter of such a requirement up to review agencies. But the committee version would permit the Secretary of Health, Education and Welfare to enter into agreements with organizations or agencies other than state medical societies for administering the review programs in areas of 300 or more physicians. The AMA contended strongly that the responsible agencies should be only state medical societies.



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Meade Whitaker, tax legislative counsel for the Treasury Department, asked the committee to add a provision to the legislation that would require health insurance companies and carriers to report unassigned payments to physicians and other providers of health care. Unassigned payments go directly to patients to be given by them to their physicians. A similar proposal was knocked out of last year's tax reform legislation by a House-Senate conference committee.

The AMA—along with the carriers and HEW—have opposed mandatory reporting by carriers of unassigned payments on the grounds that it would be difficult and costly to furnish the data and that, in many instances, the patient might not have passed along the payment to the physician. This last circumstance unfairly would put on the physician the burden of proving that he did not receive such income.

Whitaker said the Internal Revenue Service had found that more than half of 3,000 physicians who received $25,000 or more in government Medicare or Medicaid payments in 1968 failed to report a substantial amount of their income to the tax agency.

The audits were ordered after the senate committee raised the question of whether physicians receiving a large total of annual payments under the government medical programs were paying income taxes on all of it.

"Preliminary results indicate a number of instances of substantial unreported income, including some where the omission exceeds $100,000," Whitaker said.

The committee had turned over to the IRS the names of 11,000 doctors who had received Medicare or Medicaid payments exceeding $25,000 in 1968. Whitaker said 4,000 of the 11,000 doctors "justified detailed audit" and 3,000 of the audits were nearly complete, and that "about half of the 3,000 we audited will come up with substantial deficiencies" in reported income.

Sen. Russell B. Long (D., La.) said the investigation had disclosed a "vast area of tax cheating" and urged the IRS to initiate criminal prosecutions against doctors who had hidden their Medicare or Medicaid income.

Long added that, as far as he could see, the AMA "from the ethical point of view on taxes, has been completely forthright and honorable and sought to shield no one."

Long agreed with the AMA in regard to NOT including chiropractic services in the Medicare program. He told a chiropractic spokesman testifying before the committee:

"Insofar as you can convince me that you are doing somebody some good, I would be willing to cooperate, but I am not inclined to cooperate when I am not convinced that you have. My feeling is the only time a chiropractor tried it on me it didn't do any good, so I guess I am prejudiced by that."

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Nov. 7, 1970 **Holiday Inn West, Columbia**

8:30 AM *Registration* (No fee)

9:00 AM *Welcome*, Reginald P. Pugh, M.D., Chief of Staff, Ellis Fischel State Cancer Hospital

9:05 AM *Introduction*, Carlos Perez-Mesa, M.D., Chief, EFSCH Department of Pathology

9:10 AM *The Dentist's Role in Diagnosing Oral Lesions*—Henry M. Cherrick, D.D.S., M.S.D., Department of Oral Pathology, Washington University School of Dentistry

9:40 AM *Modalities of Treatment of Oral Lesions—General Comments,* Hal G. Bingham, M.D., Section of Plastic Surgery, University of Missouri School of Medicine

10:10 AM *Coffee Break*

10:25 AM *Head and Neck Syndromes,* Robert J. Gorlin, D.D.S., Division of Oral Pathology, University of Minnesota School of Medicine

11:10 AM *Medullary Carcinoma of the Thyroid—Diagnostic Considerations,* John S. Meyer, M.D., Department of Pathology, Washington University School of Medicine

11:30 AM *Questions*

12-NOON *Luncheon*, Holiday Inn West. *Guest Speaker,* Robert J. Gorlin, D.D.S.

1:30 PM *Pseudo Tumors of the Oral Cavity,* Nathaniel Rowe, D.D.S., M.S.D., Department of Oral Pathology, University of Michigan School of Dentistry

2:15 PM *Geographical Pathology of Tumors of the Oral Cavity,* Howard C. Hopps, M.D., Department of Pathology, University of Missouri School of Medicine and Chief, Division of Geographic Pathology, Air Force Institute of Pathology, Washington, D. C.

2:45 PM *Coffee Break*

3:00 PM *Seminar of Oral Lesions*
Moderator: Charles Dunlap, D.D.S., M.S.D., Department of Oral Pathology, University of Missouri School of Dentistry
Panel: Dr. Bingham, Dr. Cherrick, Dr. Gorlin, Dr. Hopps, Dr. Meyer, Dr. Rowe

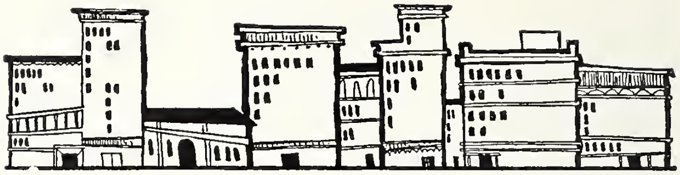
4:00 PM *Adjournment*

The Seminar is planned to demonstrate that oral lesions should be diagnosed by the surgeon, the pathologist and the dentist together. Microscopic slides, roentgenograms and clinical photographs of the cases to be discussed in the Seminar will be available for viewing during the day.

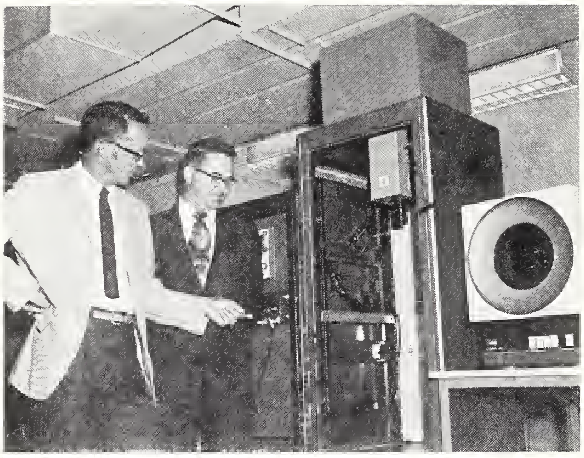
This program is acceptable for 5 prescribed credit hours by both the American Academy of General Practice and the American Academy of General Dentistry.

The EFSCH-CRC Professional Program is open to any interested physician or dentist. For further information, contact Carlos Perez-Mesa, M.D., Ellis Fischel State Cancer Hospital, Business 70 at Garth Ave., Columbia, Mo. 65201.

From the Medical Schools



UNIVERSITY OF MISSOURI



Discussing work on the development of an automatic system for diagnosing X-rays are UMC scientists Drs. Gwilym S. Lodwick (left) and Samuel Dwyer. To their right is equipment which has already been developed to scan, process and display X-rays and other radiant images. The equipment is part of the image analysis laboratory housed in the Electrical Engineering Building. Drs. Lodwick and Dwyer have been leaders in campus interdisciplinary research which has led to several advances in computer applications in radiology.

An interdisciplinary effort by scientists at the University of Missouri-Columbia to develop a computer system for the automatic analysis of X-rays and other radiant images has received grant support of $385,639 from the National Institute of General Medical Sciences. This amount is for the first year of a three-year commitment totalling more than $1 million from the granting agency.

Dr. Gwilym S. Lodwick, professor and chairman of the Department of Radiology, is the principal investigator of the research program which is entitled "Diagnostic Content and Redundancy in Radiant Images."

Several advances in computer applications in radiology have been developed at the University during the past several years. The research in automatic radiant image analysis will build on these efforts through four major but closely interrelated projects. A coordinating committee for the projects has been appointed, and Dr. Donald Manson of the radiological sciences section is the project coordinator. Because of the interdisciplinary nature of the work, each project has a director and codirector, one representing radiology and the other, engineering. The successful completion of the four projects will develop the foundation for an entirely automated system capable of making medical diagnoses from radiant images such as X-rays and also demonstrate that these diagnoses are at least as valid as those made by practicing radiologists. Such a system has important implications for improvements in medical diagnosis and health care.

Dr. Lewis J. Garrotto, assistant professor of radiology, has been named chief of the Diagnostic Section of Radiology. Dr. Garrotto was formerly head of the Nuclear Medicine Section. His new appointment places him in charge of the largest radiology division. He will oversee the work of ten resident physicians and seven full-time staff in radiology.

Dr. William M. Hart, chairman of the Department of Ophthalmology in the School of Medicine, has been named the first "Roy E. Mason Distinguished Professor of Ophthalmology" by recent appointment by the Board of Curators. The professorship was established by the Roy E. Mason and Elizabeth Patee Mason Educational Fund under terms of the will of the late Dr. Mason and his wife. Assets from the estate provide income to support the academic chair of the professorship. After establishment of the distinguished professorship bearing his name, Dr. Mason's will also provides funds for research in the field of eye diseases.

Dr. Fernando Tapia, child psychiatrist at the University of Missouri-Columbia Medical Center, assumed the presidency of the Mid-Continent Psychiatric Association for 1970-1971 at its annual meeting in Wichita, Kans. recently.

WASHINGTON UNIVERSITY

Washington University School of Medicine has announced 18 new faculty appointments in eight departments.

New members of the Anatomy Department are Mary B. Bunge, Ph.D., research assistant professor, formerly a research associate at Columbia University College of Physicians and Surgeons; Richard P. Bunge, M.D., professor, who had been an associate professor at Columbia University; and Harold Burton, Ph.D., assistant professor, previously a postdoctoral trainee at the National Institutes of Health.

Robert E. Thach, Ph.D., who was an assistant professor of chemistry at Harvard University, is now associate professor of biological chemistry here.

Appointed in the Department of Internal Medicine are Clifford A. Birge, M.D., assistant professor, former chief resident in medicine at St. Louis City Hospital; Lewis R. Chase, M.D., assistant professor, who recently completed a fellowship at Washington University; J. Joseph Marr, M.D., assistant professor, formerly a resident in medicine at Barnes Hospital; Gerald Medoff, M.D., assistant professor, who was an instructor at Harvard University Medical School; and Mario Werner, M.D., associate professor, who was an assistant professor at University of California at San Francisco.

Valgard Jonsson, Ph.D., deputy health commissioner of St. Louis, was appointed assistant professor of pathology.

James A. Ferrendelli, formerly a research fellow here, was named assistant professor of neurology and of pharmacology.

Theodore J. Cicero, Ph.D., who completed a fellowship here, was appointed assistant professor of neuropsychology in psychiatry.

Department of Radiology additions are Ronald G. Evens, M.D., assistant professor of radiology, former chief resident at Mallinckrodt Institute of Radiology; and Howell S. McCreary, M.D., assistant professor, who was a fellow in neuroradiology here.

Appointments to the Department of Surgery are Saul Boyarsky, M.D., professor and head of the division of genitourinary surgery, who was a professor at Duke University School of Medicine; James G. Bucy, M.D., assistant professor, who formerly served in the Air Force; Ovidio Duarte-Escalante, M.D., research assistant professor, who was a research associate at Duke University; Joseph A. Kopta, M.D., assistant professor, who recently completed a master's program in medical education at University of Illinois; and Peregrina N. C. Labay, M.D., assistant professor, who was an assistant professor at Duke University.

ST. LOUIS UNIVERSITY

Missouri physicians are invited to a series of guest lectures entitled "Issues in Medicine." The lectures, which are contemporary topics of medicine, were designed as part of the freshman curriculum. They will be presented in Lecture Room B on consecutive Wednesdays at 9 AM.

Subjects, guest lecturers and dates of presentation are "Medical Emergencies," Dr. Donald R. Judd, Assistant Clinical Professor of Surgery, November 4; "Problems of Hospitals Today," Dr. Arthur E. McElfresh, Jr., Professor of Pediatrics and Chairman of the Department, November 11; "The Medical Student in the Community," Dr. Max P. Pepper, Professor of Community Medicine and Chairman of the Department, November 18; "Drug Abuse," Dr. John S. Schengber, Assistant Professor of Psychiatry, November 25; and "Sexual Attitudes," Dr. Moisy Shopper, Associate Clinical Professor of Child Psychiatry, December 2.

Seventeen women, the largest number in an incoming freshman class at the School of Medicine, were among the 144 freshmen enrolled. Miss Brenda E. Armstrong, daughter of the president of the National Medical Society of Rocky Mount, N. C., is among the new freshmen. A total of 519 future physicians are enrolled in the four classes.

Dr. Max K. Horwitt, professor of biochemistry, and Dr. Coy D. Fitch, associate professor of internal medicine and associate professor of biochemistry, were two of only four Americans who attended the International Symposium on Nutrition held in Hakoni, Japan, in September. They were invited to participate in the symposium which was attended by 44 scientists. The program was held at the Tokyo Medical College. At the conference, Dr. Horwitt spoke on "Tocopherol and Polyunsaturated Lipid Relationship." Dr. Fitch delivered an address entitled "Vitamin E and Hematopoiesis."

Dr. Branislav Vidic, associate professor of anatomy, attended the Ninth International Congress of Anatomy in Leningrad August 17-22.

Dr. Raymond G. Slavin, director, section of allergy and infectious diseases, will deliver a lecture before the International Society of Allergology, which will meet in Florence, Italy, in October.

Dr. James B. Lee, associate professor of internal medicine and director of the Section of Experimental Medicine, reported on "Prostaglandins and Renal Metabolism" before the New York Academy of Sciences on September 18.

Dr. Herbert C. Sweet, clinical professor of internal medicine and director of the pulmonary laboratory, spoke on emphysema and air pollution at the meeting of the St. Louis Academy of General Practice and Tuberculosis and Respiratory Disease Society of Eastern Missouri.

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Missouri Medicine

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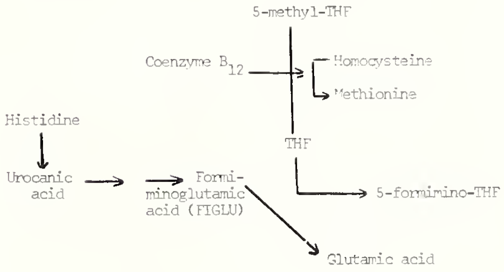
GAETANO BAZZANO, M.D., PRENTICE THOMPSON, JR., M.D.,
and **ROBERT HAUSER, M.D.,** *St. Louis*

Folic Acid Metabolism and Complications of Pregnancy

FOLIC ACID DEFICIENCY in pregnancy and its association with complications of pregnancy have been the subjects of much investigation over the years. In 1945, Moore *et al*[1] reported the first case of macrocytic anemia of pregnancy in which successful treatment with folic acid (pteroylglutamic acid) was employed. Other studies by Bethel and co-workers[2] and Day *et al*[3] shed further light on vitamin B_{12} refractory macrocytic anemias of pregnancy. This resulted in the realization that megaloblastic anemias of pregnancy were due primarily to a deficiency of folic acid.[4]

Hourihane *et al*[5] first noted the association of megaloblastic anemia with hemorrhage during pregnancy. Still another study by Hibbard[6] seems to indicate that abruptio placentae, abortion and, possibly, fetal malformation may be associated with folic acid deficiency. Folic acid deficiency was assessed by determination of urinary formiminoglutamic acid (FIGLU) excretion[7, 8] and bone marrow biopsy. Formiminoglutamic acid is an intermediary in the enzymatic degradation of histidine and excreted in the urine in folate deficiency. This has been used as the basis for a diagnostic test of folate deficiency in man, in which FIGLU is measured after a loading dose of histidine.

The metabolic interrelationship of histidine with tetrahydrofolic acid (THF) and vitamin B_{12} can be seen from the following schematic:



More recently, Streiff and Little,[9] measuring serum and red-cell folate levels, have shown an association of folic acid deficiency with abruptio placentae. Conversely, Alperin *et al*[10] evaluated 371 pregnant women and found nothing to suggest that folic acid deficiency was a cause of abruptio placentae. Their 64 Group III patients were both anemic and folic acid deficient. None developed abruptio placentae.[10] In the work presented here, serum and red-cell folate and urinary FIGLU, after histidine load, and methyl malonic acid (MMA) levels were measured in pregnant women with hemoglobin levels less than 11 gm/100 cc or hematocrit values less than 33% or both. Included were women with abortions, abruptio placentae and other antepartum or intrapartum complications.

MATERIALS AND METHODS

The patients included in this study were seen on the Outpatient and Inpatient Obstetrical Services at St. Louis City Hospital, except one, who was seen at St. Louis University Hospital. All patients seen at St. Louis City Hospital were indigent.

Twenty-eight patients were included in the study (Table 1). The patients' ages ranged from 15 to 39 years and six of the 28 were primigravidas (five were less than 20 years of age). All were selected on the basis of anemia, defined as hemoglobin level below 11 gm/100 ml or hematocrit value of less than 33% of venous blood[11] or both.

Twelve of the 28 patients had the following complications: two had abortions, five had abruptio placentae (since the rates reported by various investigators range from 1:50 to 1:200, this number is statistically significant),[12] one had postpartum hemorrhage, one had preeclampsia, one had a urinary tract infection, one had a premature delivery and one had a stillborn child without apparent cause.

Serum and red-cell folate levels were determined by microbiologic assay using Lactobacillus casei according to the method of Herbert.[13, 14] Normal values for serum folate levels in our laboratory were 6.1-18 ng/ml; levels suggestive of deficiency were 4-6 ng/ml; deficient levels were less than 4 ng/ml. Normal red-cell folate levels were 40-160 ng/ml; levels suggestive of deficiency were 20-40 ng/ml; deficient levels were less than 20 ng/ml, in agreement with the levels reported by Streiff and Little.[9]

Urinary FIGLU levels were measured using the colorimetric method described by Johnstone *et al.*[15] In our laboratory, normal values for FIGLU were 0-50 μg/ml.

Urinary MMA levels, which have been found to be increased in vitamin B_{12} deficiency, were

TABLE 1

PATIENTS INCLUDED IN STUDY

Patient	*Age*	*Hb+ (Hct)**	*Serum Folate†*	*Complication*
1	23	9.9	3.1	Premature delivery
2	36	10.2	8.6	Abortion
3	22	9.9	3.1	Stillborn delivery
4	30	8.5	3.0	
5	39	9.0	54.0	
6	22	8.7	6.0	
7	30	10.4	4.4	
8	26	9.0	5.2	
9	21	9.4	1.0	
10	17	10.8	2.9	Abruptio placentae
11	18	9.8	1.0	Preeclampsia
12	17	10.6	3.0	
13	31	9.6	3.6	
14	26	10.8	2.8	Abortion
15	20	11.0 (32)	3.4	Abruptio placentae
16	28	11.0 (31)	6.4	
17	24	8.7	4.4	
18	21	9.9	1.7	
19	26	8.9	1.2	Abruptio placentae
20	25	9.2	10.1	Abruptio placentae
21	18	9.8	2.5	
22	16	10.5	2.5	
23	23	9.0	7.4	
24	17	9.7	1.0	GU infection
25	31	6.8	3.0	Postpartum hemorrhage
26	26	10.5	1.5	Abruptio placentae; preeclampsia
27	15	10.6	2.5	
28	17	(26)	1.1	

+ Hb = hemoglobin in g/100 ml
* (Hct) = hematocrit in %
† Serum folate in ng/ml

obtained by using a modification of the method of Giorgio and Plaut.[16] The normal range in our laboratory for the 24-hour determination was 5-18 mg/24 hr.

Results

Analysis of the serum folate levels showed that 19 of the 28 patients (67.8%) were folate deficient and an additional four (14.3%) were borderline deficient (Fig. 1). In the patients with complications, the incidence of folate deficiency rose to 83.4%. In this group, five women had abruptio placentae and four of these were folate deficient.

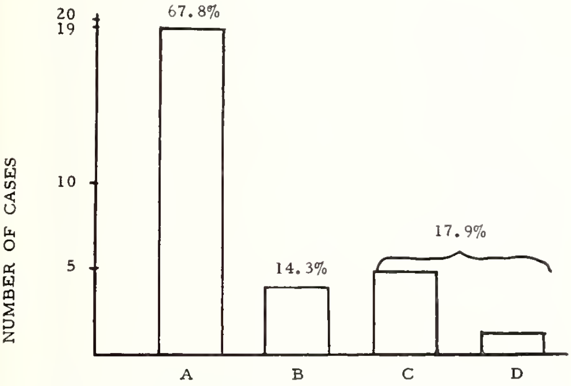


Fig. 1 Serum folate levels (ng/ml) in 28 patients.
A = Deficiency : < 4
B = Suggestive of deficiency : 4-6
C = Normal : 6.1-18
D = High : > 18

Red-cell folate levels were measured in 16 of the patients with serum folate levels of less than 6 ng/ml. Thirteen of the 16 (81.3%) showed red-cell folate deficiency of varying degrees.

Urinary FIGLU determinations were obtained on 18 patients after histidine loading (15 gm). The results are shown in Table 2.

TABLE 2

COMPARISON OF SERUM FOLATE WITH FIGLU VALUES

Serum Folate (ng/ml)	*FIGLU*	*Number of Patients*
Less than 4	11H; 1N	12
4-6	2H	2
6.1-18	2H; 1N	3
> 18	1N	1

N = normal (0-50 μg/ml)
H = high (greater than 50 μg/ml)

Serum folate and urinary formiminoglutamic acid levels were measured in anemic pregnant patients, some of whom had antepartum or intrapartum complications. Tests for folate deficiency showed a high correlation between serum folate and urinary FIGLU levels. The data seem to support an association between folate deficiency and complications of pregnancy in women who are anemic and pregnant and it would appear that these patients should be categorized as "high risk." The authors are from the Departments of Internal Medicine, Gynecology and Obstetrics, St. Louis University School of Medicine, and Obstetrical Services, St. Louis City Hospital. This investigation was supported in part by USPHS Grants N. 1 SOL FR 5388 and RO1 AM-10066-01.

As can be seen from the table, FIGLU excretion tests performed on 12 patients with serum folate levels less than 4 ng/ml were found to be abnormally high in all but one case. Two patients with serum folate suggestive of deficiency showed high urinary FIGLU excretion. On the other hand, two of three patients with normal serum folate levels showed excessive urinary FIGLU excretion. The urinary MMA excretion was found to be elevated in both cases, suggesting a vitamin B_{12} deficiency in these patients. This may explain the excessive FIGLU and normal serum folate levels in these patients, as some investigators have detected increased FIGLU excretion in some cases of vitamin B_{12} deficiency.[17, 18] Urinary MMA excretion was found to be in excess in four additional patients in whom the measurement was made. Three of these patients also had low serum folates.

Discussion

Various diagnostic criteria and methods have been employed in the evaluation of folic acid deficiency in pregnancy. Included are bone marrow, serum folate activity, urinary FIGLU excretion and plasma clearance of IV folic acid. There is little wonder, therefore, that such a wide range of incidence has been reported. For example, Lowenstein *et al*[19] in 1955 reported an incidence of 0.5%, using megaloblastic bone marrow as the parameter. On the other hand, Chanarin *et al*,[20] using plasma clearance of IV folic acid, reported a 90% incidence. More recently, in the United States, Streiff and Little[9] have reported an incidence of folic acid deficiency of 18% in women at the time of normal delivery and 15% and 16% in the second and third trimesters, respectively. During the same year, Stone *et al*,[21] using urinary FIGLU excretion as diagnostic criterion, reported a 22% incidence.

In our study, a 67.8% incidence of folic acid deficiency was found (with an additional 14.3% having questionable deficiency). However, the patients included in this series were "selected" on the basis of a hemoglobin level less than 11 gm/100 ml or a hematocrit value of less than 33% or both. Our high incidence could be due to the large number of multigravidas (gravida 5 and over), the primigravidas younger than 20 years of age and coming from a socioeconomically deprived group in which nutritional deficiencies have been consistently prevalent (Fig. 2). Hibbard[6] has also shown a particularly high incidence in these two groups of patients.

The 83.4% incidence of folate deficiency in the patients with complications, as compared to the 67.8% incidence in the overall group, seems quite significant. Of the five patients with abruptio placentae, four were folate deficient. This compares with a 60% incidence of folate deficiency in abruptio placentae patients reported by Stone *et al*,[21] a 95% incidence reported by Streiff and Little[9] and a 98% incidence reported by Hibbard.[6]

No conclusion can be drawn from our study concerning the relation of folate deficiency in abortions since only two abortions were included and only one had a low serum folate. Red-cell folate levels were measured in 16 patients with serum folate values of less than 6 ng/ml and 13 (81.3%) showed red-cell folate deficiency, indicating that the folate deficiency in these patients was of a prolonged nature since red-cell folate levels decrease only after prolonged folate deficiency.[22]

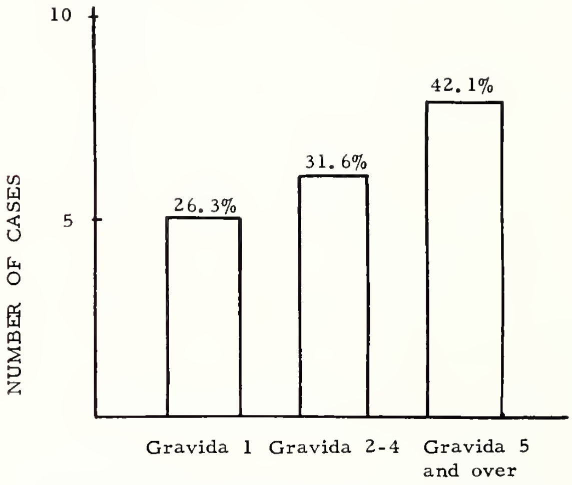


Fig. 2 Incidence of folate deficiency by gravidity.

The correlation between serum folate and urinary FIGLU levels, though not absolute, was quite high. There was absolute correlation in 15 of 18 patients in whom both determinations were made. In the three lacking this parameter, two (both with low-normal serum folate and high urinary FIGLU excretion) showed excessive excretion of urinary MMA implicating a vitamin B_{12} deficiency, which has been shown in some cases to cause excessive urinary FIGLU excretion.[16, 17]

Urinary MMA excretion was increased in all six patients in whom this determination was made. Three of these patients had low, two questionably low and one a high serum folate. Although urinary MMA excretion is an indirect evaluation of vitamin B_{12} deficiency and no serum B_{12} levels were measured on these patients, it is probable that these six patients were vitamin B_{12} deficient. Lowenstein[23] found that 50%, in a series of 26 pregnant patients, had abnormally low vitamin B_{12} levels (less than 100 pg/ml) or responded to the administration of vitamin B_{12}. Thus, although true addisonian pernicious anemia rarely occurs, vitamin B_{12} deficiency in pregnancy may occur more frequently than presently suspected and further investigation may be warranted.

Most investigators seem to agree that certain factors contribute to folic acid deficiency in pregnancy and that certain patients fall into a "high risk group." Included in this latter group are those patients in the lower socio-economic classes, those with poor dietary histories, multiple pregnancies, multigravidas, particularly those of gravida 5 or over and primigravidas less than 20 years of age.[6]

This study included patients from a low income population in which inadequate diets, multigravidity and very young primigravidity are quite prevalent. This probably accounts for our high incidence of folic acid deficiency. Moreover, the even higher incidence of folic acid deficiency found in those patients having complications in their pregnancy or at delivery seems to indicate that there is, indeed, an asso-

(Continued on page 804)

DAVID D. SCHERR, M.D., ***Columbia***

Closed Fractures in Children's Extremities

Although children's bones heal rapidly and remodel extensively, their growth may be harmfully altered or even stopped by certain fractures and even by some methods of treatment. This paper describes the elements which are troublesome to aid physicians who are not orthopedists. Dr. Scherr is Assistant Professor of Surgery (Orthopedics) and Microbiology at the University of Missouri Medical Center.

The bones of children are well known for their ability to heal rapidly and remodel extensively after closed fractures (Figs. 1 & 2). Hence, physicians may forget that end results can be more catastrophic than those in adults. Children's growth and recuperative powers themselves are the very factors which may give rise to catastrophe or tempt the physician to treat in a manner that will invite poor results. For example, epiphyseal fractures require almost anatomic reduction if well-aligned growth is to continue, yet too forceful reduction may itself close the epiphysis prematurely. Also, failure to appreciate healing and remodeling may cause the physician to seek anatomic reduction of a long bone shaft and to operate, a needless and frequently disastrous course.

Differences Between Children and Adults

The child differs from the adult in several ways of interest to those treating fractures.

Healing and revascularization are more rapid in children and, the younger the child, the faster a fracture can be expected to heal. Because of individual variation, no schedule has been devised which accurately predicts the healing time of each bone at all given ages. Of course,

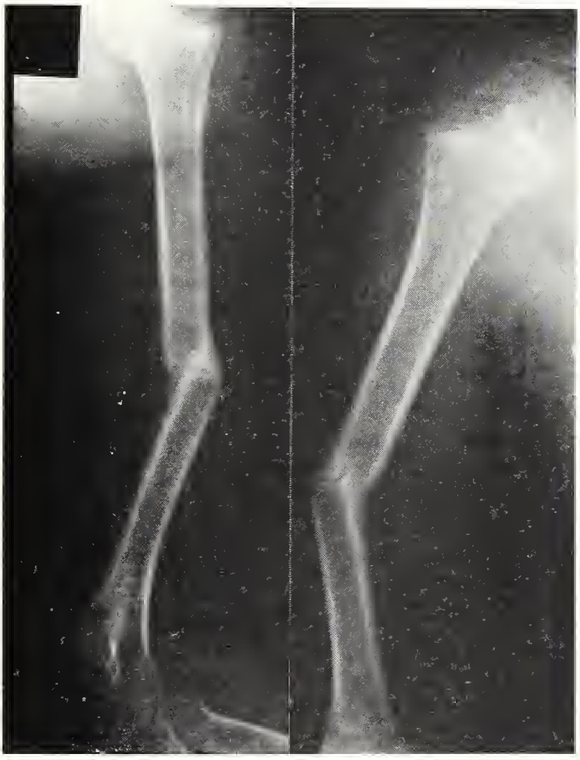


Fig. 1 A 13-year-old boy, three months after multiple fractures, in whom humeral shaft healed while angulated 30° on anteroposterior view and 23° on lateral view.

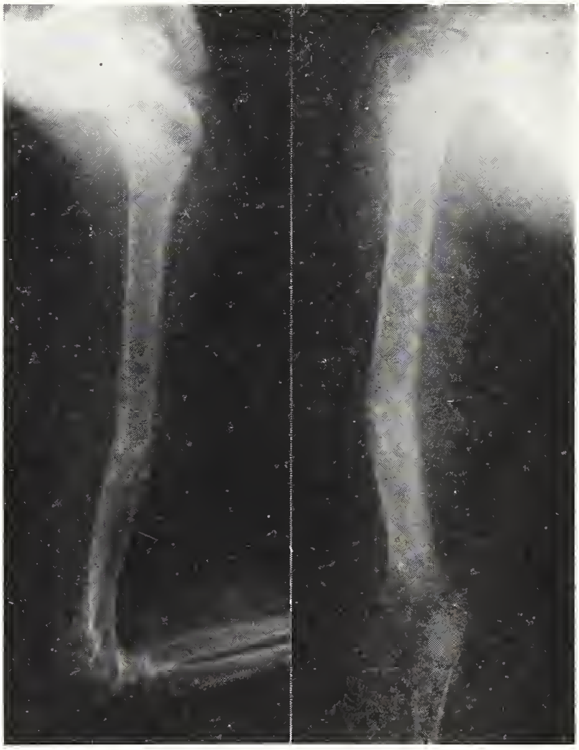


Fig. 2 The same patient as in Fig. 1, three and one-half years post-injury. Humeral angulation now is 15° on anteroposterior view and seven degrees on lateral view.

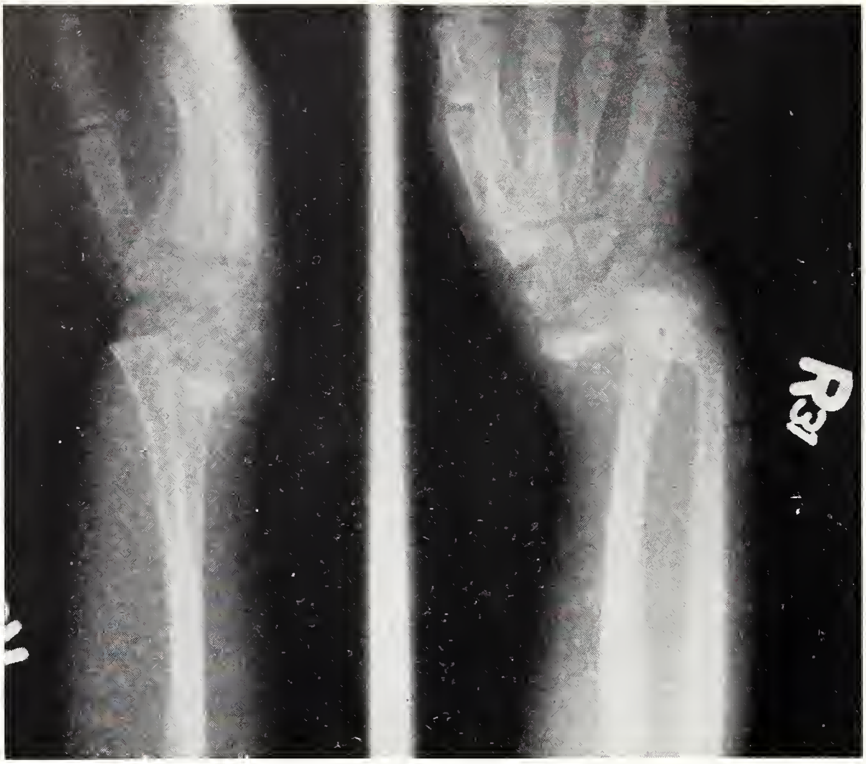


Fig. 3 A nine-year-old girl with transverse fracture at distal radial epiphyseal plate and ulnar metaphysis.

one judges when to discontinue immobilization by radiographic examination and by palpation of the site for stability and tenderness. The same factors which accelerate healing make nonunion almost unheard of when immobilization is adequate and operation avoided. Extensive avascular necrosis after fracture is much less frequent in children than in adults, except after femoral neck fractures, which are rare in children. Even in necrotic bone, revasculariza-

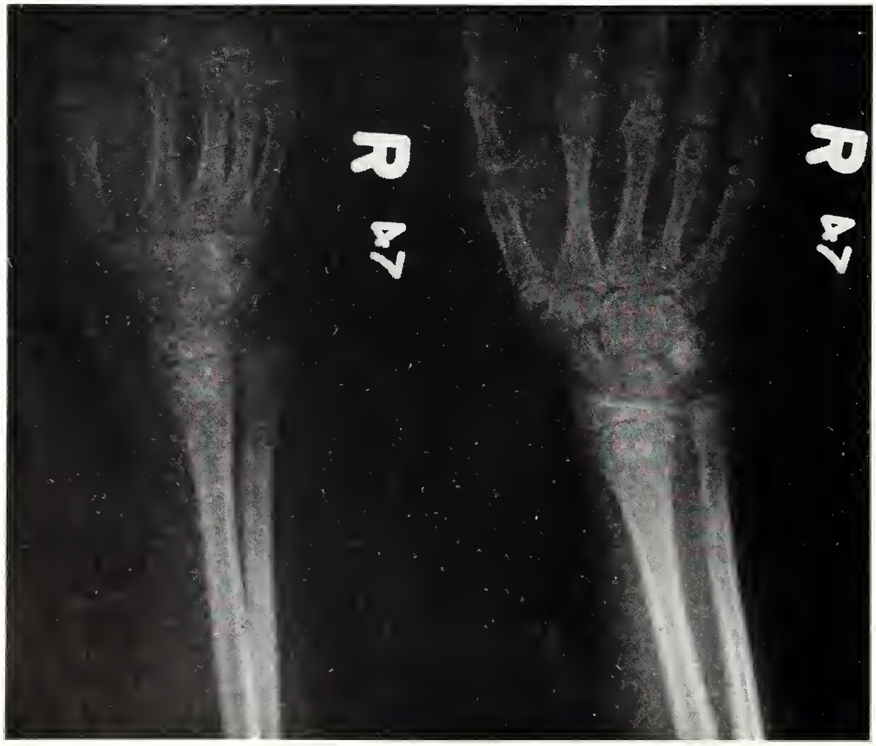


Fig. 4 The same patient as in Fig. 1, 14 months after fracture. Radial epiphyseal plate is still open.

tion and healing occur more rapidly than in adults.

Open epiphyses may accelerate longitudinal bone growth following fractures. This frequently occurs in shaft fractures. It is the reason for accepting overriding of bone ends otherwise well aligned in younger children in order to compensate for length overgrowth later. About 1 cm of overlap in the child under age ten or 11 years can be expected to minimize overgrowth of a femur, and somewhat less than 1 cm overlap can be beneficial in humerus, radius and ulna, and tibia and fibula.

Epiphyseal Fractures

Fractures which cross the epiphyseal plate may cause premature epiphyseal closure (Figs. 3 & 4), whereas those parallel to the plate, if reduced gently, do not cause closure (Figs. 5 & 6). Anatomic reduction decreases the chance for growth arrest, but the violence of injury to epiphyseal chondrocytes probably is the principal determinant of plate closure, and damage may be increased by repeated reduction attempts. One should limit manipulations to one or two attempts and, also, realize that open reduction may add little to the manipulative position, but may jeopardize epiphyseal blood supply.

Injuries about long bone ends may pose problems in diagnosis by x-ray. An epiphyseal line may look like a fracture line on the film, so comparable views of the contralateral extremity should be taken routinely. Regions such as elbow and foot, where multiple small epiphyses and sesamoid bones are present, seem especially troublesome on radiograms.

Healing and Remodeling

Remodeling is more extensive in children than in adults. One may accept as much as 20° of angulation of a fracture when the child is under ten or 11 years of age. Angulation remodels better when it is in the plane of the nearest hinge-type joint, but some remodeling takes place even when angulation is not in that plane (Figs. 7 & 8). Excessive angulation of bones predisposes to refracture for a year or more. Rotational deformity at a fracture site undergoes little or no remodeling and should

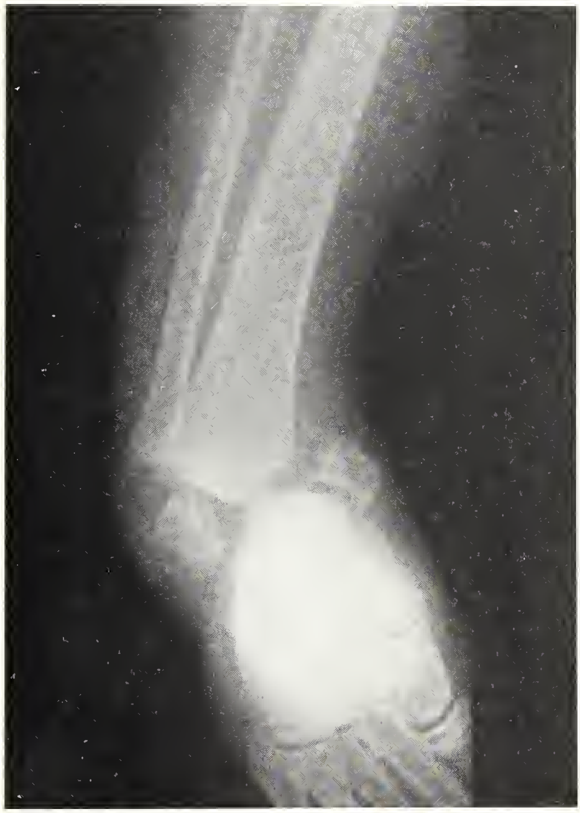


Fig. 5 A 12-year-old boy with displaced bi-malleolar ankle fracture parallel to fibular epiphyseal plate, but crossing tibial plate.

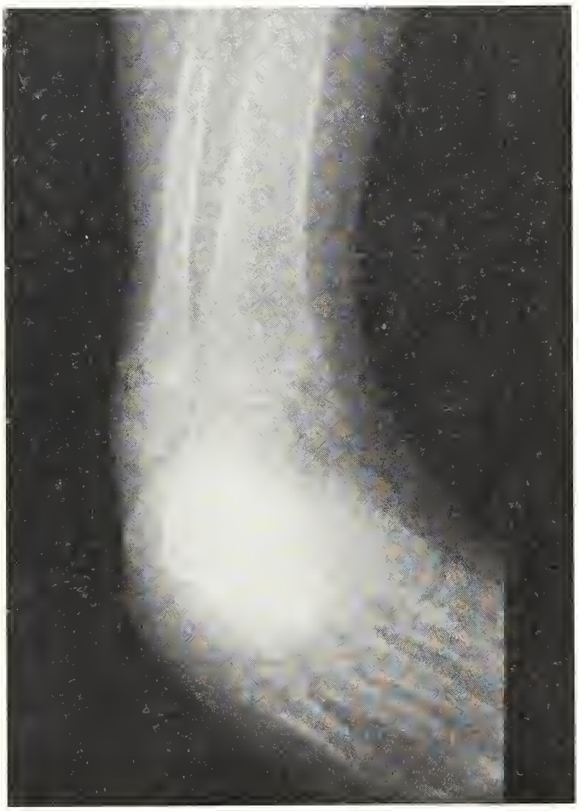


Fig. 6 The same patient as in Fig. 3, two months post-injury. Fibular plate is open but medial malleolar portion of tibial epiphyseal plate already is closing.

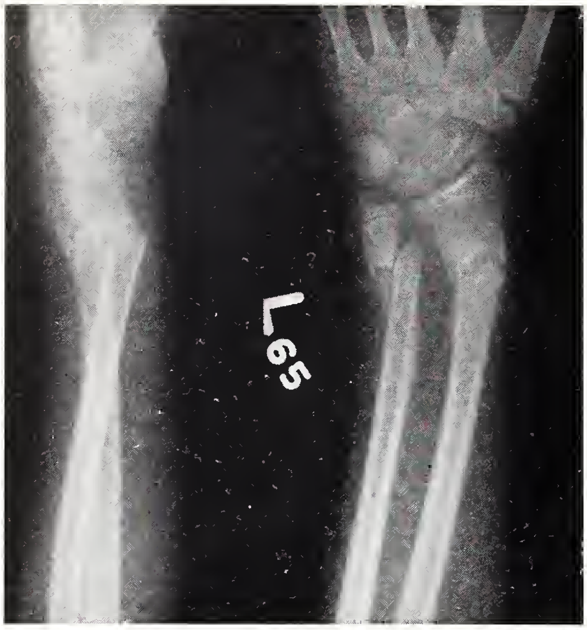


Fig. 7 A 14-year-old boy, five weeks after reduction of radius and ulna had been partially lost. Radius is 40° angulated dorsally and 40° angulated toward ulna; ulna is in bayonet apposition.

not be accepted. Angular deformity of more than ten degrees in the middle one third of radius and ulna is usually unacceptable in spite of potential remodeling because pronation and supination may be severely, though temporarily, limited. If this fracture is angulated and of greenstick type, it is best to "complete" the fracture by quick manipulation and then reduce the fragments before immobilization.

Open Reduction

With few exceptions, closed fractures in children should never be opened surgically because anatomic end results are better provided by growth and remodeling if infection is not introduced. The fractures which frequently need open reduction are displaced single condylar fractures of the humerus (either medial or lateral), displaced radial neck fractures and femoral neck fractures in children over age seven or eight years. Wires or other devices used for internal fixation of any of these should be removed a few weeks after healing of the fracture is complete. Rarely, other fractures need to be opened. These should be seen by an orthopedist for indication and include displaced patellar fractures, some epiphyseal fractures, some fractures leaving parts of articular surfaces free-floating and markedly displaced fractures of tibial spines (sites of cruciate ligament attachment).

Cautions in Specific Fractures

Several fractures pose unique problems and either should be given special attention or referred to an orthopedist after splinting.

Displaced supracondylar fractures of the humerus usually involve posterior displacement of the distal fragment and rapid development of hematoma and edema around the elbow. Closed reduction with hyperextension followed by acute flexion to prevent displacement is easy, but increasing swelling in the antecubital fossa rapidly reduces the flow in the brachial artery at the

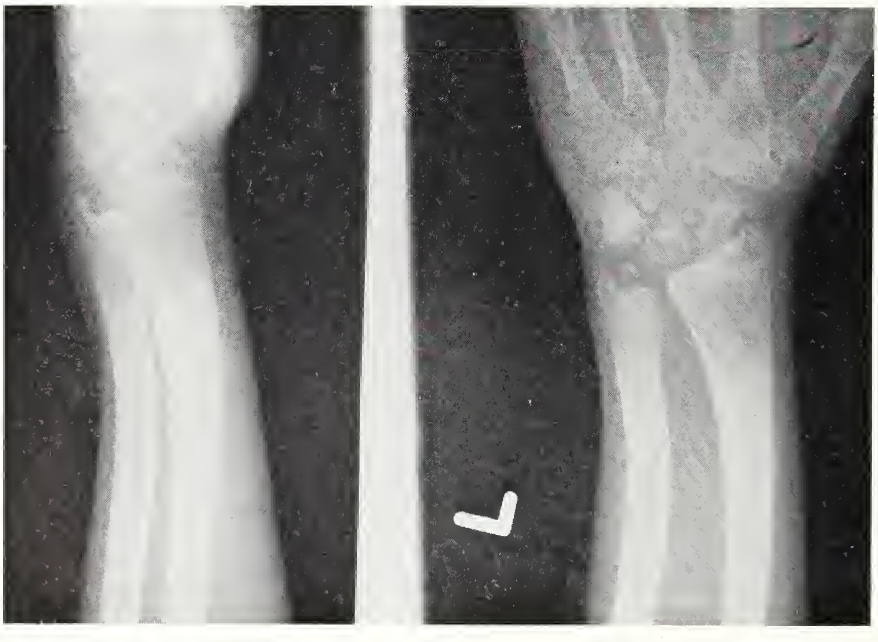


Fig. 8 The same patient as in Fig. 3, 12 months after injury. Dorsal angulation of radius is reduced to 15° (in plane of wrist of motion), but ulnar angulation of radius is reduced only to 25° (perpendicular to plane of wrist motion).

flexed elbow. If acute flexion of the elbow is maintained for more than a few minutes after onset of pain, paresthesia, pallor, paralysis and pulselessness, Volkmann's ischemic contracture is almost inevitable. There is no orthopedic complication as uniformly disastrous as Volkmann's contracture. The only successful treatment of this contracture is prophylaxis, provided by extending the elbow until swelling reduces. The physician must be able to extend the elbow and substitute Dunlap's traction less than one half hour after onset of ischemia, or traction may be applied initially and final reduction and flexion achieved several days later.

Fractures of the neck of the radius need no manipulation if there is angulation of less than 45° and no displacement. Pressure of one thumb over the radial head during forearm rotation usually reduces the radial head in such injuries. The displaced radial head often requires open reduction, but under no circumstance should the head be excised because the result is relative undergrowth of the radius and progressive radial deviation of the hand.

Femoral shaft fractures heal nicely with external fixation and remodeling and should never be reduced open, let alone have insertion of internal fixation of any kind (Figs. 9 & 10). The patient's size determines whether or not skeletal traction or Russell's traction is necessary for reduction in older children. Age and size also indicate the use of Bryant's traction, that is, suspending both legs vertically with buttocks barely touching the bed. Bryant's traction is comfortable only when the child is young enough to have relatively loose hamstring muscles (less than three years, usually). More important is the child's weight, for skin under traction tapes tolerates only 5 lb or 6 lb without blistering, so no more than that should be attached to each leg in suspending about one half of the patient's body weight off of the bed. Therefore, a child with more than 25 lb body weight is a poor candidate for Bryant's traction. In addition, the circumferential wrapping around the calf and skin tapes must be carefully applied and observed frequently to avoid vascular constriction and gangrene of the feet.

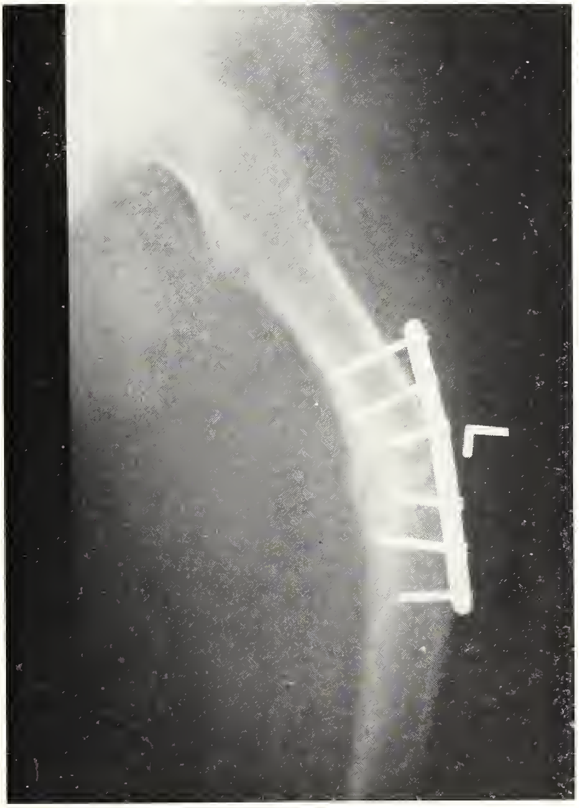


Fig. 9 A 12-year-old boy with femoral shaft fracture electively plated, but, by four months, this deformity occurred.

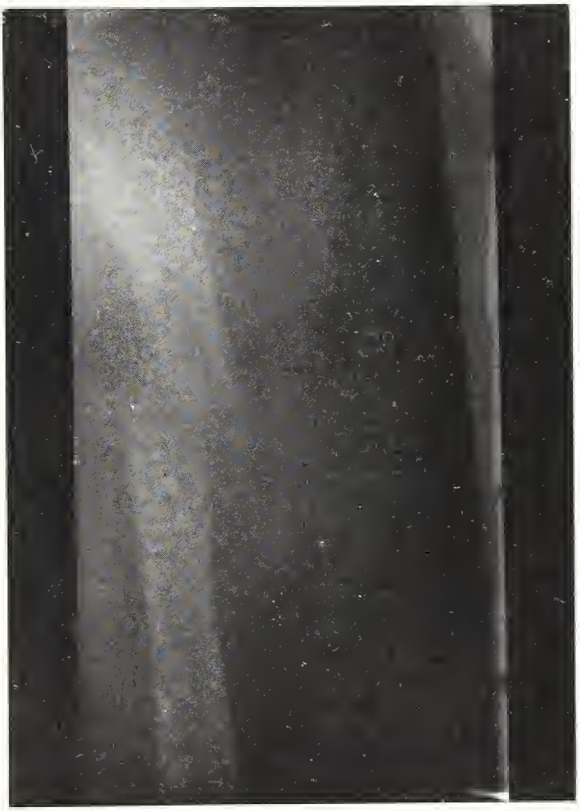


Fig. 10 The same patient as in Fig. 1 at six months. Femur had refractured, so hardware was removed and tibial-pin traction was instituted. Four weeks later, the bone was solid enough to allow spica cast with this alignment, which should have been done in the first place.

SUMMARY

Closed fractures in children's extremities differ from those in adults by virtue of growth and greater remodeling. These forces must be utilized to the advantage of the child and treatment modified accordingly from that of the adult. Helpful generalities in the treatment of such childhood injuries are as follows: compare x-rays of the contralateral site to those of the injury; don't operate to reduce fractures in the shafts of long bones; attempt anatomic reduction only when the fracture line enters the epiphyseal line, and then only with minimal manipulation.

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Folic Acid Metabolism

(Continued from page 798)

ciation between folate deficiency and complications of pregnancy when the patient is anemic. This association and possible mechanistic interdependence are under study.

Acknowledgement: The authors wish to express appreciation to Dr. Denis Cavanagb and Dr. Frank Ostapowicz from the Department of Gynecology and Obstetrics, St. Louis University, and Mrs. Priscilla Hagebush for their assistance in the development of this investigation.

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The Chicago Medical Society will hold two Postgraduate Courses this fall. A course in *Internal Medicine* will be held on November 9-11 and a course in *Obstetrics and Gynecology* will be held on November 16-20. The courses will be given at the Knickerbocker Hotel, 163 East Walton, Chicago. Registration is limited. The fee for each course is $150.00. The program is acceptable for 32½ AAGP elective hours. Contact Charles P. McCartney, M.D., Secretary, Chicago Medical Society, 310 S. Michigan Ave., Chicago, Ill. 60604.

SAMUEL P. W. BLACK, M.D. *and*
WARREN P. SIGHTS, M.D., *Columbia*

Posterior Fossa Brain Tumors

Operative Experience at the University of Missouri Medical Center

During the first 13 years of the University of Missouri Medical Center's operation, 70 patients with posterior fossa tumors underwent neurosurgery. The authors report on the technical aspects of the surgery and the survival rate. Dr. Black is a Professor of Surgery (Neurosurgery) and Dr. Sights is an Associate Professor of Surgery (Neurosurgery) at the Medical Center.

One of the greatest challenges facing a neurosurgical team is the treatment of tumors located in or adjacent to the cerebellum, pons and medulla oblongata. In addition to the surgeon, the radiologist, anesthesiologist, pathologist and the nursing service are involved. It is an endeavor which truly measures a hospital's neurosurgical capability. Here are our experiences with the 70 patients with surgically verified posterior fossa tumors who were operated on during the first 13 years of the University of Missouri Medical Center's existence.

Clinical Data

Between 1956 and July, 1969, there were 343 brain tumors surgically verified at this hospital. Two hundred and seventy-three were above the tentorium and 70 below (Fig. 1). The posterior fossa lesions thus constitute about 20% of the total, a figure less than Sachs and Furlow's 34%[1] and Zülch's[2] approximately 28%. Not included in this tabulation are three patients with aqueduct stenosis who were operated on and the condition rectified, but the cause was not established histologically. Also excluded are six cases of arachnoiditis that were verified by tissue diagnosis.

Histologically, the tumors were identified as tabulated in Table 1. The classification is that of Bailey and Cushing.[3] The two unclassified gliomas were a lesion of the pons, probably a spongioblastoma, and the other a cyst in the cerebellum, most likely an astrocytoma, in a young

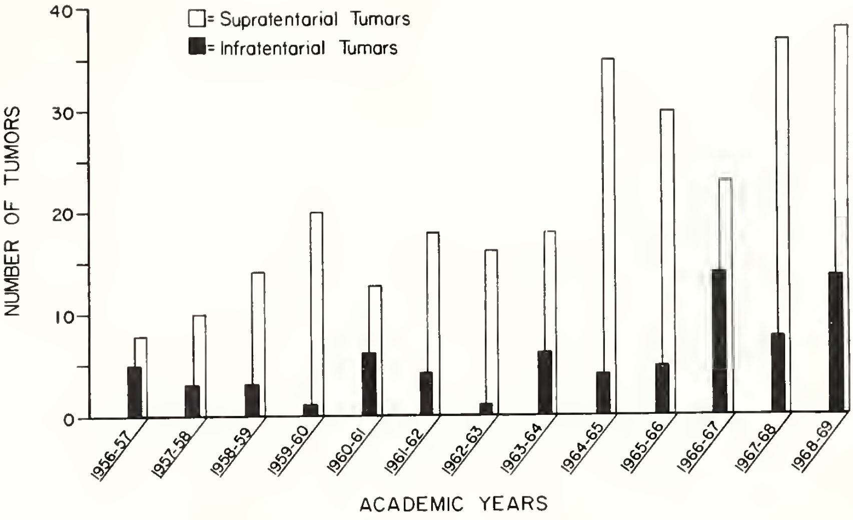

Fig. 1 Craniotomy for verified brain tumors.

TABLE 1

POSTERIOR FOSSA TUMORS—1956-1969

		No. of Cases
Gliomas		32
Astrocytoma	10	
Medulloblastoma	10	
Hemangioblastoma	4	
Ependymoma	4	
Glioblastoma Multiforme	2	
Unclassified	2	
Metastatic Tumors		17
Acoustic Neurinoma		14
Meningioma		3
Blood Vessel Tumors		3
Granuloma		1
		70

man who is still living. Lung and breast were the most common sites of the primary for the metastatic lesions. Blood vessel tumors were an arterio-venous angioma, a cavernous hemangioma and a venous angioma. The granuloma was due to *aspergillus* in a four-year-old child.

Diagnostic Studies

Following a thorough clinical evaluation, air ventriculography, with or without Pantopaque, was the standard radiological diagnostic procedure. It was performed on the day of surgery. With increasing frequency and benefit, we have added carotid and vertebral angiography.[4] Radioisotope brain scan has been useful in identifying large metastatic deposits but, so far, it has not been equally helpful with other posterior fossa lesions. Eleven patients underwent surgery on the strength of the neurological examination alone and there was no operative mortality among them.

Operative Mortality

Twelve patients died in the hospital. Permission for postmortem examination was obtained in each instance.

Four patients with gliomas, two with astrocytomas, one with an ependymoma and one with a glioblastoma multiforme died. Two of these neoplasms had deeply invaded the brain stem; the other two patients died from hemorrhages in and about the pons after lengthy and hazardous removal of large cerebellar masses.

Each of the three patients with metastatic tumors who died before discharge were found at autopsy to have other small deposits in the brain and elsewhere.

The five patients who died following operation for the removal of an acoustic neurinoma succumbed to hemorrhage and softening of the brain stem or, in one case, to pneumonia; and in each case, the tumor was very large, had involved adjacent cranial nerves and deformed the pons. In each case, it had been completely removed. These deaths are even more regrettable because the eighth nerve tumor is a benign lesion capable of being diagnosed while still small and, thus, more easily removed.

Survival

The survival pattern of the 58 patients who left the hospital is shown in Fig. 2. It can be seen that almost all patients with the more malignant neoplasms did not survive long: about a year for glioblastoma multiforme and the metastatic lesions, a year and a half for ependymoma and within five years for medulloblastoma. Furthermore, even a histologically more benign lesion like the astrocytoma or meningioma will eventually prove fatal by virtue of its location if it can't be completely removed. But there are some noteworthy long survivals also, even among the malignant tumors, and the continuing good results with the astrocytoma, hemangioblastoma, acoustic neurinoma and the blood vessel tumors are most gratifying.

Each of the children with medulloblastoma had postoperative radiation to the head and spine. Three of these children survived five years or more and two of the three are still living. Radiation also was given to the patient with glioblastoma multiforme, to one with an ependymoma and to a woman with a probable spongioblastoma. Antimetabolites were not used on any case in this series.

It might be argued, in view of the generally short survival time of patients with metastatic tumors to the cerebellum, that we were too sanguine. The figures, we submit, tend to justify our approach. Operation was limited to those patients who had only one demonstrable lesion preoperatively and who were judged suitable for anesthesia. Fourteen of the 17 patients with such tumors left the hospital. Considering their basic disease, they were largely in satisfactory condition upon discharge, usually improved over the preoperative status and remained so for a rewarding period of time. One elderly lady with a breast tumor that had metastasized to the cerebellum survived more than eight years.

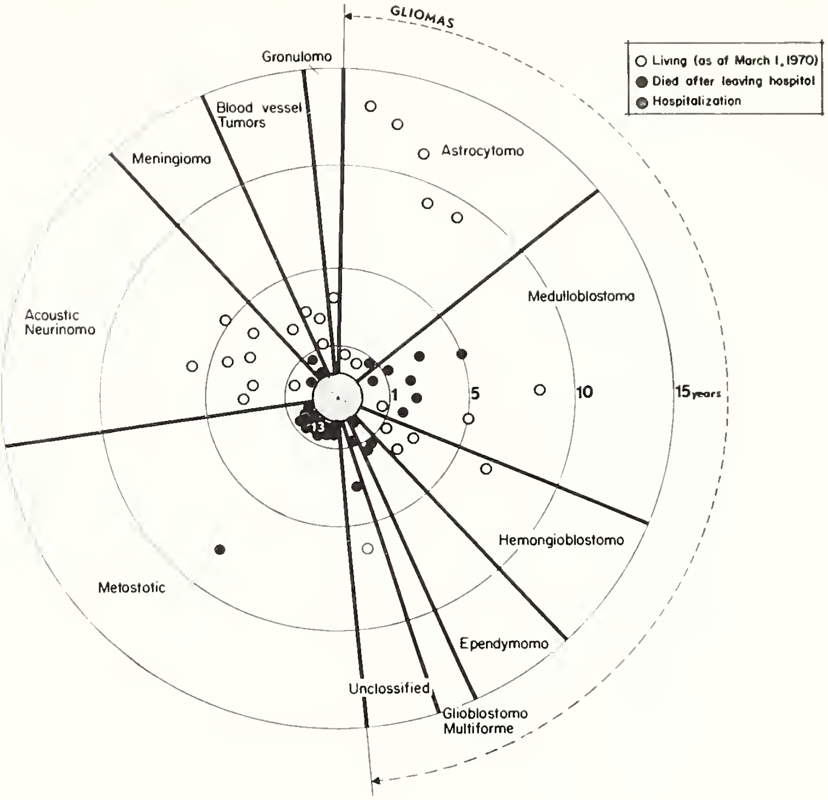

Fig. 2 Survival pattern of 58 patients who left the hospital following removal of a posterior fossa tumor.

SURGICAL EXPERIENCE

All operations were done under general anesthesia using supplemented nitrous oxide and oxygen via an endotracheal tube. The sitting position was used except for small children who were placed prone. An intra-cardiac catheter was often positioned for recovery of air should it enter the venous system under negative pressure. Reoperation was necessary to effect the complete removal of three of the acoustic neurinomas, two of the astrocytomas and the unclassified cerebellar cystic lesion. Tracheostomy was done on five patients. Four individuals had procedures for shunting ventricular fluid into the heart when an inoperable tumor blocked flow through the aqueduct. Four patients from whom eighth nerve tumors were removed needed hypoglossal-facial nerve anastomosis to restore symmetry to the face after the seventh nerve had been damaged in the removal of the tumor.

SUMMARY

Seventy posterior fossa tumors have been surgically verified since 1956 at the University of Missouri Medical Center. Operative mortality occurred principally among patients with large neoplasms that had invaded or deformed the brain stem. The survival pattern of patients leaving the hospital shows that those with the histologically more benign tumors are living relatively normal lives. Patients with malignant neoplasms or more benign processes incapable of complete removal have been benefitted although surviving shorter periods of time. Notes have been made on the technical aspects of the surgery.

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Genetics of Schizophrenia

A Review

In the controversy about the etiology of schizophrenia, genetic findings have received increasing attention in recent years. Much of the work and observations have been made concerning the incidence of schizophrenia in the general population and the expectancy rates in families of schizophrenics in which the twin approach was often used. A large amount of material has been gathered by investigators to support the genetic theory of etiology, but the schools of thought do not all agree on the significance of the data and validity of the reasoning behind the theories. This review presents a few of the major ideas and problems behind the theories.

In the beginning, it became clear that the preferred method for studying the genetic aspects of schizophrenia was the use of concordance rates for the disease in monozygotic and dizygotic twins. Unfortunately, many of the classical studies in this area were done before the development of the modern methods of zygosity determination and the error caused a greater probability of classifying monozygotic twins as dizygotic.[1] This would produce higher concordance rates for monozygotes. In 1961 Inouge,[2] published the results of a major twin study which can be summarized in Table 1.

TABLE 1

DIAGNOSIS OF CO-TWINS

	MZ	*DZ*
Concordant		
Schizophrenia	20	1
Schizophrenia-like disorder	13	1
Total	33 (60%)	2 (12%)
Discordant		
Other disorders	1	3
Personality deviated	17	3
Intact	4	10
Total	22 (40%)	15 (88%)
Total	55	17

(MZ = Monozygotic, DZ = Dizygotic)

In this study, the zygosity was established in all cases by ABO blood group, MN type, P type and salivary excretion type. It was concluded from this investigation that the hereditary role in schizophrenia was very important, but the discordant monozygotic twins indicate the presence of environmental factors as causative agents. Inouge felt that the genes seemed to be responsible for the personality traits and weaknesses and that when the proper environmental agencies were present, overt schizophrenia was the result.

Gottesman and Shields[3] concluded from their studies that the identical twin of a schizophrenic is at least 42 times as likely to be schizophrenic as a person from the general population, and a fraternal twin of the same sex is nine times as likely to be schizophrenic. They felt that the mode of transmittance was probably polygenic in which having a great many of the genes predisposed an individual to develop schizophrenia by lowering the threshold for dealing with stress. Their results can be summarized as follows:

Grade 1—Pairs where the co-twin has been hospitalized and diagnosed as schizophrenia.

Grade 2—Co-twins have had a psychiatric hospitalization, but have been diagnosed as other than schizophrenia.

Grade 3—Co-twins are otherwise psychiatrically abnormal, i.e., outpatient clinic problem, neurotic or psychotic MMPI, in G.P. care for psychiatric problem.

Eighty-three per cent monozygotic twins blood typed.

Sixty-one per cent dizygotic twins blood typed.

	Monozygotic		*Dizygotic*	
Grade	N	%	N	%
1	10	42	3	9
1 + 2	13	54	6	18
1 + 2 + 3	19	79	15	45
Normal	5	21	18	55
Total	24	100	33	100

Perhaps the most outspoken and convincing proponent of the genetic theory for the etiology of schizophrenia is Kallmann. In his very extensive and painstaking study published in 1946, Kallmann[4] arrived at the following morbidity rates: 1.8% for step-siblings, 2.1% for the marriage partners, 7.0% for half-siblings, 9.2% for the parents, 14.3% for the full siblings, 14.7% for dizygotic co-twins and 85.5% for monozygotic co-twins. The ratio of morbidity between dizygotic and monozygotic co-twins approximated 1:6. This investigator felt that the possibility of explaining this difference on non-genetic grounds could be easily excluded by an analysis of the common environmental factors prior to and after birth. Kallmann in this study further defined the genetic factor as "probably recessive and autosomal." He was very careful to mention, however, that "the genetic theory of schizophrenia does not invalidate any psychological theories of a descriptive or analytical nature."

In 1964, Kallmann attempted to synthesize and focus the concept of a genetic action.[5, 6] He viewed behavior pattern as a genetically controlled sequence of very specific biochemical interactions. He felt that genes were the programers for the continuing processes that controlled development. He emphasized the need for a concentrated search for the biochemical structure of these gene-specific disturbances. The model which he used was one of a complex interaction of the fixed genotype with biologic, social and ecologic factors to determine the phenotype of the individual. As a result of his studies, Kallmann emphasized the need for family guidance programs for schizophrenic parents. He found that despite the break up of isolates in modern society, we could not expect the proportion of schizophrenics in the future to decline. The reason for this is that the previously limited reproductive capacity of schizophrenics is now approaching that of their non-schizophrenic contemporaries primarily due to better medical care.

In parallel with Kallmann have come hypotheses concerning the etiology of schizophrenia based on various types of genetic abnormalities. These have included chromosomal failure, alteration in nucleotide sequences in both DNA and RNA through inversion and semi-lethal, stress vulnerable enzymatic deficiencies.[7]

There were other investigators who disagreed with Kallmann at that time. They felt that the best explanation for the results of family studies was on the basis of a single dominant gene "Sc" with only a 25% penetrance.[8] It was assumed that the homozygous "Sc" would be lethal. The obvious question which this hypothesis raises is "why hasn't this dominant gene been eliminated?" If it is given that the frequency of schizophrenia is about 1% and the reproductive fitness of schizophrenics is only about 70% that of non-schizophrenics, it seems reasonable that this single dominant gene would drop out in a few hundred years. The answer to this genetic dilemma is to be found in the interesting concept of balanced polymorphism, i.e., the death of the homozygote is balanced by a special strength found in the heterozygote. A possible explanation of this is to be found in the observation that schizophrenics have a much higher than normal resistance to the shock of trauma or surgery, to allergies in general, to a number of pharmacologically active materials and to some infections.

In reviewing major ideas and problems related to the various theories of the etiology of schizophrenia, the author has presented background information for physicians who need to provide genetic counseling for patients affected by this disease. Dr. Cox was a senior student at the University of Missouri School of Medicine at the time this paper was written. He is now an Intern in Internal Medicine, University of Washington Medical Center, Seattle.

Jackson[9] was one of the first and foremost investigators to re-examine these studies to look for alternative explanations. He found that these theories were really based on two common assumptions which were not founded in fact: "(1) that individuals have been exposed to stress or psychogenic trauma similar to that experienced by schizophrenics without developing schizophrenia; (2) that many cases exist of identical twins who have been reared from infancy or early childhood in separate and distinct environments and yet have both developed schizophrenia."

On the first point, there is no valid theory of psychogenic causation for schizophrenia. On the second, there are only two reported cases in the literature of twins reared apart in separate and distinct environments from early childhood. Kallmann's group were only separated five years prior to the psychosis and not during their formative years. As Harvald and Hange[1] have pointed out, there are also incongruities in the twin studies themselves: (1) it is doubtful that the intra-pair environment between monozygotic and dizygotic pairs is on the average the same;[1, 10] (2) unlike dizygotic twins, monozygotic twins tend to live similar lives by choice; (3) in dizygotic twins of the same sex and in monozygotic twins, the environment will be more different than for dizygotic twins of different sex; (4) there is always a problem in getting a sufficient number of affected twins.

A major twin study by Tienan[10] of 16 schizophrenic patients and one with reactive psychosis revealed all the pairs concerned to be discordant, although most of the co-twins of the schizophrenics showed obvious schizoid features. It was his conclusion that the previous studies had overestimated the concordance rates due to methodological biases.

Kringle has found credence in both sides of the issue and gives evidence to support both genetic and environmental causations.[11, 12, 13] In one of his studies of 20 pairs of twins in which the proband was diagnosed as schizophrenic, he examined in detail the eight pairs who were found to be discordant and also monozygotic. He found that the environment in all these cases was unsatisfactory in that the fathers were weak, the mothers domineering and overprotective and the environment the same for both, but affecting the preschizophrenic to a greater extent because he was more submissive and dependent on the mother. He found no correlation between birth order and schizophrenia.

In all cases, he found that the preschizophrenic twin had childhood neurotic symptoms. He concludes that all of the above factors predispose to schizophrenic development. Kringle also noted that the "healthy" co-twins usually deviated from the normal somewhat, which would indicate it was a vulnerable personality structure which was inherited and not the schizophrenia as such.

The most recent genetic surveys would indicate that acceptable rates for monozygotic concordance are about 20%-40% and for dizygotics, 5%-15%.[13] It would seem that there is indeed a genetic factor in the etiology of schizophrenia, but this factor does not play as great a role as has been assumed. The genetic hypothesis most widely favored by research workers today seems to be the polygenic one. In other words, many minor gene pairs participate equally. This would, of course, closely simulate a single gene inheritance with reduced penetrance. This would best explain the wide continuum from normality to severe mental disease seen in parents of schizophrenics, twins and siblings. Most single gene diseases are relatively rare, but polygenic diseases are rather frequent.

There is, then, a rather low concordance rate for schizophrenia among monozygotic twins with the unaffected twin having a 60% chance of remaining unaffected. This only reenforces the considerable contribution of environment to the etiology of schizophrenia and the relatively minor but real contribution of inheritance.

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"A Bibliography of Sports Medicine" has been published by the American Academy of Orthopaedic Surgeons. The 96-page volume contains 175 index subjects that include aquatics, biomechanics, conditioning, drugs, equipment, the knee, pain, research methods, skin-diving, warm-up and weight. It is available at $2.00 per copy with quantity discounts. Write Publications Committee, American Academy of Orthopaedic Surgeons, 430 N. Michigan Ave., Chicago, Ill. 60611.

HERBERT SILVER, M.D., ***St. Louis***

Blood Procurement Programs for the Hospital Blood Bank

Taking into account that 6,000,000 pints of blood are collected each year throughout the country from only 2% to 3% of the 100,000,000 Americans who are eligible to give blood, it is obvious that there is a large, untapped reservoir. Of those 2,000,000 to 3,000,000 donors, 20% are paid for the unit drawn, adding significantly to the cost of blood. Procurement programs have been instituted at The Jewish Hospital of St. Louis for the purposes of recruiting potential blood donors for voluntary contributions, reducing the blood deficit and decreasing unit costs for blood. The latter is accomplished by reducing the number of professional donors who need to be called upon to meet routine and emergency blood requirements. At the same time, a source of blood is available which can be utilized during predictable periods when donations are expected to lag far behind the blood needs. When this is effective, it is of benefit to other hospitals as well, as the drain on central collection centers in a community, such as the Red Cross, is reduced at least from one hospital, making more blood available to other hospitals.

Two basic Blood Procurement Programs have been instituted: (1) Surgical and Obstetrical Predonation and (2) the Woman's Auxiliary Blood Assurance Program. The description of these programs and the results obtained are the basis of this report.

Procurement Programs

Surgical and Obstetrical Predonations: Each patient who is to be admitted to the surgical and gynecological services of The Jewish Hospital for elective surgery receives a letter which is sent through the Admitting Office. This letter states that all the blood needs of the patient will be met without charge to the patient for the blood and regardless of the amount needed if a unit of blood is donated prior to admission either by the patient or by a friend or relative in the patient's behalf. There are obvious advantages to the patient if he can be encouraged, with the physician's consent and help, to donate the unit personally approximately two weeks prior to surgery. If the donation is made by the patient, the blood is placed aside until the time of surgery. It is then released, if unused, for general use after a suitable postoperative period.

Similarly, all obstetrical patients are notified of the predonation program at the time that their reservation for an obstetrical bed is confirmed by the Admitting Office. If a unit of blood is donated, the blood needs of the mother and the newborn baby for any number of units of blood and for any purpose are taken care of without charge.

Women's Auxiliary Blood Assurance Program: The benefits that are offered to the Auxiliary member and her family under this program are modeled after those offered by the local Red Cross donor center. In return for a unit of blood given or pledged on behalf of the Auxiliary member's family, blood is supplied without charge to any member of the participant's immediate family if the need arises. The

The Jewish Hospital of St. Louis has successfully instituted two procurement programs for the purpose of recruiting potential blood donors for voluntary contributions, reducing the blood deficit and decreasing unit cost for blood, namely Surgical and Obstetrical Predonation and the Woman's Auxiliary Blood Assurance Program. Offering a similar program to hospital employees is under consideration. The author describes the programs and the results obtained. At the time this paper was written, Dr. Silver was from the Department of Pathology and Laboratory Medicine, The Jewish Hospital of St. Louis and the Department of Pathology, Washington University School of Medicine. He is now Director of Blood Bank and Immunohematology at Hartford Hospital and Assistant Professor at the University of Connecticut School of Medicine.

immediate family includes the Auxiliary member and spouse, their parents and grandparents, unmarried siblings and children residing within the household. An obvious disadvantage over the Red Cross program is that this coverage applies only for admissions to The Jewish Hospital. This does not cause an undue problem in recruitment since the "service to the hospital" aspect of the program is stressed.

In order to institute the program, each registered member of the Women's Auxiliary was contacted by mail and encouraged to donate a unit of blood as a service to the hospital and to provide her family with the benefits of the Blood Assurance Program. It was emphasized that the donation also could be made by a friend or relative on behalf of the member if she is ineligible as a donor. A prepaid response card by which a pledge of the unit of blood could be made was included in the mailing. Those responding favorably with a pledge were immediately covered under the program for one year with the provision that they would redeem the pledge when called upon. It was made clear to them that they might not be called for several months. In this way, there was some control over when donations were made. The pledged donor was notified two weeks prior to the month in which it was anticipated that the donation would be most needed. The participant was allowed to choose any day during that particular month for the donation.

Results

A trial period for the Predonation Program was instituted on a limited basis in October, 1967. At this time, the program was offered only to obstetrical patients and to those patients being admitted for elective gynecological surgery. This trial phase extended through August, 1968, during which time 139 units of blood were donated and 14 units of blood were released to participants in the program. Of these units, 104 were donated in behalf of and two released to obstetrical patients. The total number of donors does not include those who were rejected.

In September, 1968, general surgical patients being admitted for most elective procedures were included under the program. Patients admitted to speciality surgical services, such as Orthopedics and Neurosurgery, were not included because of the frequent requirement of blood that generally occurred during the surgical procedures performed by these services. By Jan. 1, 1970, a total of 547 units had been donated in the combined program and 51 released. From Jan. 1, 1969, through Dec. 31, 1969, a total of 318 units were donated and 23 released under the program. Of this combined total, 116 units were donated on behalf of obstetrical patients, while no blood was required by this group.

Although the Women's Auxiliary has a large membership, only about 300 to 400 women participate to any degree in the functions or activities of the Auxiliary. All active and inactive members were contacted and 147 pledges were obtained. A total of 83 units were finally collected, since many donors were found to be ineligible and made no effort to obtain a substitute donor. Among the participating members, there was one hemophiliac who underwent surgery while being covered by the program and a chronic leukemia patient who required periodic transfusions. A total of seven units of blood were released during 1969 to patients eligible for benefits under the Auxiliary Blood Assurance Program.

Discussion

Some indication of the effectiveness of the program can be seen by examining the number of units of blood obtained from voluntary and professional donors in comparison to the number of units transfused, starting with 1966 when

TABLE 1

WHOLE BLOOD DONATIONS AND USAGE AT THE JEWISH HOSPITAL OF ST. LOUIS, 1966 TO 1969

Year	*Units of Blood Transfused*	*Number of Voluntary Donors*	*Number of Program Donors*	*Professional Donors*	
				NUMBER	PER CENT OF ALL DONORS
1966	3,635	1,843	0	162	8.8
1967	2,928	1,383	38	104	7.5
1968	3,083	1,554	229	175	11.3
1969	3,266	1,915	401	71	3.7

these programs were not in effect and ending with 1969, the first full year of operation of the combined program (Table 1). A total of 3,635 units of blood were transfused in 1966. During this same year, 1,843 voluntary donors were phlebotomized and 162 professional donors were drawn. The additional units of blood needed were obtained from outside sources. A total of 3,266 units of blood were transfused, 1,915 voluntary donors were phlebotomized and only 71 professional donations were required in 1969. Although the number of units transfused has shown a significant decrease, there has been an increase in the number of voluntary donations and a prominent decrease in the number of professional donors who had to be called in order to satisfy emergency needs.

The programs described are not self-sustaining. A constant effort is needed to maintain patient and doctor support. This can be accomplished by periodic reminders to the physician to encourage predonation and periodic progress reports indicating the effectiveness and the results of the program. Innovation and flexibility also are helpful for increased effectiveness. During 1969 when many of the participants in the Blood Assurance Program were called to redeem their pledges during the months when blood shortages were expected, an adequate supply of blood was available at The Jewish Hospital while it was in short supply at other institutions in the community.

A similar program to be offered to all hospital employees is now under consideration. This type of program has been successful at other hospitals[1] and it should make available a large potential supply of blood for both routine and emergency needs, when the total work force of 1,800 employees at the hospital is approached.

The blood replacement program continues to be the major source of blood for hospital blood banks. A dependence on outside sources and paid professionals to supplement this supply can be decreased by utilizing the potential that is present within a hospital through blood procurement programs.

Acknowledgement: The author wishes to thank Judith E. Miller, B.S., for her assistance in preparing this paper.

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Reprints: Herbert Silver, M.D.
Dept. of Pathology and Laboratory Medicine
Jewish Hospital of St. Louis
216 S. Kingshighway
St. Louis, Mo. 63110

In Memoriam

Bugg, Andrew F., M.D., Lordsburg, New Mexico, a graduate of Barnes Medical College, 1903; member of Mineral Area Medical Society; age, 93; died Sept. 1, 1970.

Underwood, Ross H., M.D., Shawnee Mission, Kan., a graduate of University Medical College of Kansas City, 1913; member of Jackson County Medical Society; age, 82; died Sept. 7, 1970.

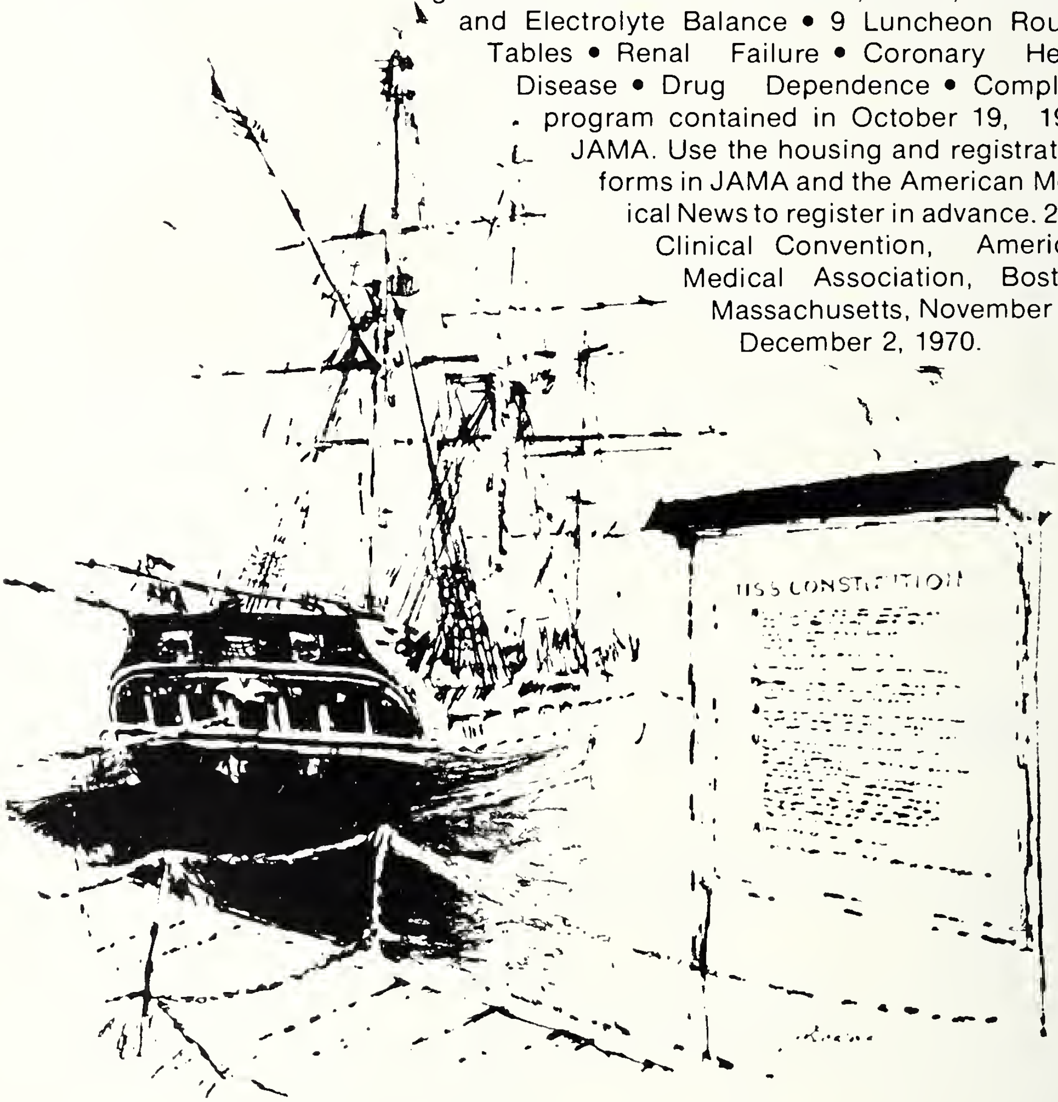
Sheets, Martin E., M.D., Chesterfield, a graduate of Beaumont Hospital, 1901; member of St. Louis Medical Society; age, 94; died Sept. 17, 1970.

Davie, Joseph, M.D., St. Louis, a graduate of Washington University, 1903; member of St. Louis Medical Society; age, 89; died Sept. 23, 1970.

Bindbeutel, Arthur H., M.D., St. Louis, a graduate of Washington University, 1924; member of St. Louis Medical Society; age, 70; died Sept. 27, 1970.

24th AMA Clinical Convention in Boston, Massachusetts November 29-December 2, 1970

WHAT'S NEW IN MEDICINE? Numerous scientific sessions at the AMA 24th Clinical Convention will provide the answers • Clinical Immunology • Clinical Gynecology • Pollution and the Physician • 3 Postgraduate Courses in Anesthesia, Burns, and Fluid and Electrolyte Balance • 9 Luncheon Round Tables • Renal Failure • Coronary Heart Disease • Drug Dependence • Complete program contained in October 19, 1970 JAMA. Use the housing and registration forms in JAMA and the American Medical News to register in advance. 24th Clinical Convention, American Medical Association, Boston, Massachusetts, November 29-December 2, 1970.



President's Message

IF WE DON'T DO IT, IT WON'T 'GET' DONE

To paraphrase this year's slogan of our United Fund Campaign seems most appropriate. The slogan, "If you don't do it, it won't 'get' done," points out the responsibility of citizens to support our democratic way of lending help to the less fortunate. The "privilege of participating" is a choice that millions of peoples in foreign lands wish they had.

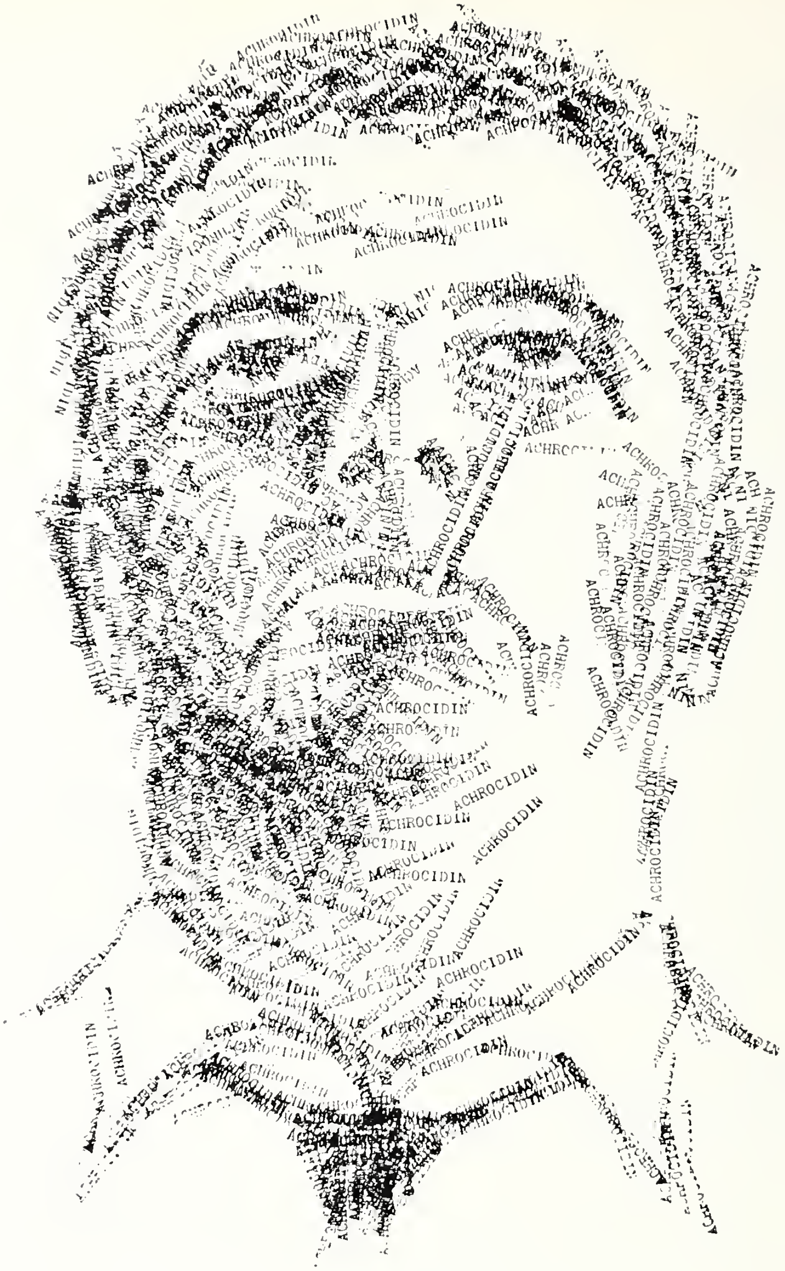
To carry this slogan a little further and apply it to some of our problems in medicine is but a short step. In the Constitution of the MSMA, Article II, it clearly states among the purposes of the association, "*the protection of the Public Health.*" Many years ago, some of our predecessors, being scientifically minded and less acutely aware of the importance of legislative matters than we are today as the result of third party interference in the doctor-patient relationship, permitted the entrance of a "Trojan Horse" into the domain of health care, namely, "chiropractic." This "Trojan Horse" is perennially trying to expand its practice act in Missouri even though the U. S. Department of Health, Education and Welfare has declared, and I quote, "*the scope and quality of chiropractic education do not prepare the practitioner to make an adequate diagnosis and provide appropriate treatment.*"

Joseph L. Fisher, M.D.

Milton Helpern, M.D., Chief Medical Examiner of the city of New York, has said, "The teachers, research workers and practitioners of medicine reject the so-called principle on which chiropractic is based and correctly and bluntly label it a fraud and hoax on the human race. . . ."

Ralph Lee Smith, an experienced medical journalist, traveled from coast to coast for many years delving into history, facts and fantasies of chiropractic in preparing his book, "At Your Own Risk." He recounts some of his experiences as a patient at so-called famous chiropractic clinics and relates knowledge he obtained from visiting leading chiropractic schools as well as what he heard and saw at a criminal trial of a chiropractor whose eight-year-old patient died of a neglected cancer.

The AMA wants individual state societies to speak out about this "fraud and hoax on the human race." Some of our neighboring states have introduced legislation to outlaw these people who label themselves as "Doctors" but are not prepared to make "adequate diagnoses and provide appropriate treatment" for sick citizens. Granted that not all have been successful as yet, but it is becoming apparent that they are making progress in this movement. To some, it may seem to be a very high hurdle. However, if we are to be "protectors of the Public Health," it is best we start because "IF WE DON'T DO IT, IT WON'T 'GET' DONE! ! ! !"



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Precautions: Drowsiness, anorexia, slight gastric distress can occur. In excessive drowsiness, consider longer dosage intervals. Persons on full dosage should not operate vehicles. Nonsusceptible organisms may overgrow; treat superinfection appropriately. Treat beta-hemolytic streptococcal infections at least 10 days to help prevent rheumatic fever or acute glomerulonephritis. Tetracycline may form a stable calcium complex in bone-forming tissue and may cause dental staining during tooth development (last half of pregnancy, neonatal period, infancy, early childhood).
Adverse Reactions: *Gastrointestinal*—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. *Skin*—maculopapular and erythematous rashes; exfolia
dermatitis; photosensitivity; onycholysis,
discoloration. *Kidney*—dose-related ris
BUN. *Hypersensitivity reactions*—urtica
angioneurotic edema, anaphylaxis. *Intracra*
—bulging fontanels in young infants. *Tee*
yellow-brown staining; enamel hypopla
Blood—anemia, thrombocytopenic purp
neutropenia, eosinophilia. *Liver*—cholestasi
high dosage.
Upon adverse reaction, stop medication
treat appropriately.

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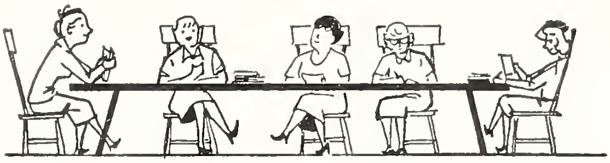
Woman's Auxiliary



Every county medical society in Missouri has an auxiliary—true or false?

All who answered *false* go to the head of the class! There are 50 county medical societies in Missouri but only 26 auxiliaries. This is truly a regrettable situation when there are so many needs demanding solutions, particularly when the solutions require clear thinking, trained minds and responsible action by Missouri citizens. Some of Missouri's very best citizens are physicians and their wives, but we need both the medical society and the auxiliary *working together* if we are going to make any impact at all on the problems facing us.

The auxiliary is more than a "kaffee klatsch"! It is an organization that can undertake the responsibility of working for the very programs that need the attention of physicians who "don't have the time." It is a sad fact that many physicians are skeptical of the valuable roles their wives could play in improving community health through the auxiliary. Is medicine losing by default in your community because you're not available for civic duties and there is no organized auxiliary to represent you and participate in community affairs?

Dr. Carl Lechner, editor of *Pennsylvania Medicine* writes, "**because . . . in many gatherings, no voice speaks for the doctor . . . the non-participating, non-represented doctor often does not know what's going on and decisions affecting medicine are reached without his counsel. . . .**" He therefore suggests, "**When Doctor isn't available, the Woman's Auxiliary can serve well in his stead.**"

Mrs. William M. Walker
President

Philip Lesly, a public relations consultant to the AMA, has told us we should be your eyes and ears in the community. We should convey to you a sense of what is going on and *you* should express *your* viewpoints and judgments for us to take back to the community. It is our job to keep you working effectively within the community, rather than in isolation.

So, we're not "just another woman's organization." We are an extension of your medical society, designed to help you. Please urge your wife, if she's a nonmember, to **clip one of the coupons below.** When she receives the information we will send, study it with her and learn how we can all help each other.

Please send information on how to organize a Woman's Auxiliary in our county.

Mail To:
Mrs. William M. Walker
President
2845 Southern Hills Blvd.
Springfield, Mo. 65804

Name ....
Street ....
Town .... Zip Code ....

(Please turn to next page)

I wish to become a Member-At-Large, since there is no Woman's Auxiliary in our county. I enclose my check for $6.00 for dues.

Mail To:

Mrs. Donald E. Eggleston
410 N. Rutherlord
Macon, Mo. 63552

Name ....
Street ....
Town .... Zip Code ....

I wish to affiliate with the .... County Woman's Auxiliary, since there is no Auxiliary in our county.

Mail To:

Mrs. Thomas Thale
State Membership Chairman
351 Meadow Brook
Ballwin, Mo. 63011

Name ....
Street ....
Town .... Zip Code ....

If your county medical society does have an auxiliary, are you aware of its activities? Perhaps you will consider a joint program sometime soon and compare notes on activities and needs?

Continuing Education Coming Events

Nov. 9-12	**Internal Medicine** Postgraduate Medical Education K. U. School of Medicine, Kansas City, Kan. 66103
Nov. 10	**Problems in Sex and Marriage** (Six Tuesday evenings) Dept. of Neurology and Psychiatry St. Louis U. School of Medicine 63104
Nov. 11-12	**Sex and Gender Deviations in Children and Adolescents** Continuing Education, M. U. School of Medicine Medical Center, Columbia 65201
Nov. 11-13	**Recent Advances in Pediatrics** Menorah Medical Center, Kansas City 64110
Nov. 12	**Psychological Factors in Industrial Medicine** (Eight Thursday evenings) Dept. of Neurology and Psychiatry St. Louis U. School of Medicine 63104
Dec. 2-3	**Diagnosis and Treatment of Common Respiratory Diseases** Continuing Education, M. U. School of Medicine Columbia 65201
Dec. 7-8	**Gynecology and Obstetrics** Postgraduate Medical Education K. U. School of Medicine, Kansas City, Kan. 66103

EDITORIAL

THE SOCIAL HOUR

It is at the combined social hour after the committee meetings and before the dinner when many of the problems that are bothering you are solved. It is here that you meet your friends and find an opportunity to greet one another, reestablish amenities, crystallize a few ideas from the last conversation, smooth over the rough spots from a previous conflict or disperse an imaginary slight.

As you enter the meeting room for the social hour, you find a few of the well seasoned, semi-retired affable gentlemen cozying themselves comfortably in an offside chaise lounge where they reminisce or philosophize among themselves and receive the salutations of their younger upcoming peers.

Off to one side, you will perceive the secret three huddled with hands vehemently gestulating and elbows protruding to protect their flanks from the intrusion of the curious. They are, often, the ones who have made the decisions, shortly to be acted upon in accordance with the democratic principles of parliamentary regulations and within the rule of the newly and nigh annually revised Constitution and By-Laws.

Hovering around the hors d'oeuvres, you find the corpulent and the teetotalers, as if dinner had been called off or postponed, perhaps never to be served. "Umm, 'stho goodfi uh-hu, will you have one?"

The in-town speaker of the evening is left to his own devices; he has friends, critics, advocates—sink or swim—he's been around with that talk of his before, in the staff room, the dressing room: "Do your stuff, my man, nice to see you!"

But the out-of-town speaker (in-town in his own bailiwick) is being squired through the crowded 15-foot radius adjacent to the refreshments, to be introduced to the hoi polloi: the chiefs-of-staff, the senior surgeons, the professor from the University, the Executive Secretary and the very humble man "who does all the work around here."

With left arm held high, the program chairman signals another honored guest, forewarning the speaker of the evening: "I especially want you to meet Mr. Greenbuck whose benevolence and spirit of fair play has endowed our project."

Later, the meeting is called to order and "with your forbearance we shall read the (boring and detailed) minutes of the last meeting and the decisions of your very hard-working committees—Dr. Upinthechairs, will you proceed?"—"Do I hear a second? Any discussion? All in favor . . . signify by saying 'Ay,' all opposed 'No.' Carried! I'm sorry, George, you're overruled."

Carl O. Rice, M.D.
Minnesota Medicine

The largest number of surgeons in the history of the American College of Surgeons, namely 1,551, were inducted as new Fellows of the College in cap-and-gown ceremonies on October 16 during the annual five-day Clinical Congress in Chicago. Membership of the College now totals 31,000 surgeons from 92 countries.

ACCIDENT AND HEALTH INSURANCE

The Missouri State Medical Association since 1943 has made available to its members a Special Disability Income Benefits Policy issued by our "Loyalty Group" Companies now a part of the America Fore-Loyalty Group Insurance Companies—the largest casualty-fire underwriting group in the world. The low cost at which the policy is offered is made possible through the purchasing power of the membership of your association as a whole.

Now, new plans offering long term income benefits as well as a special Major Hospital-Nurse Expense Plan have been added to the program. We suggest you who are already enrolled make sure your policy includes the maximum benefits. Those of you not enrolled, we suggest you do so today. Call or write:

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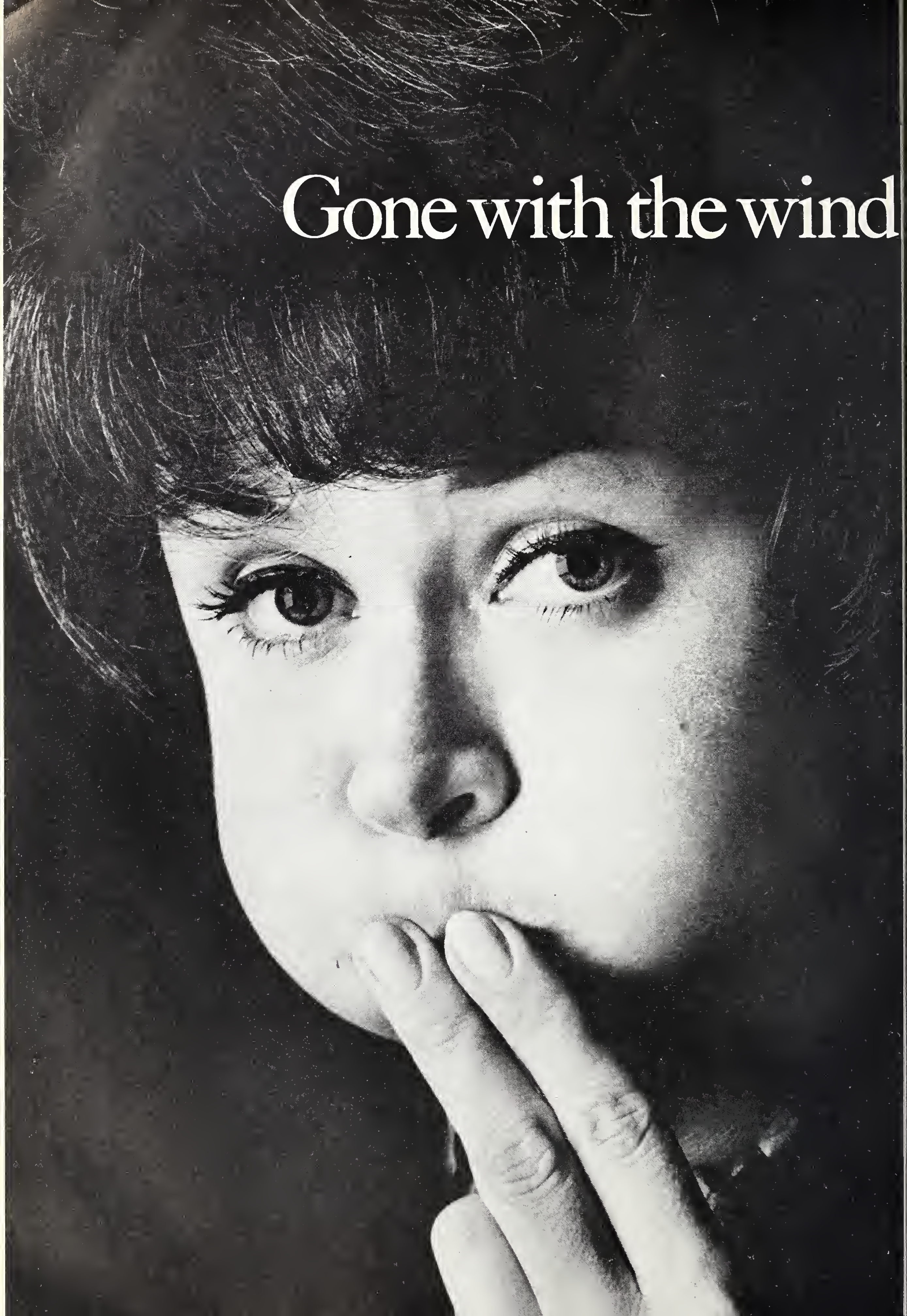
(Western Missouri Administrators)


Gone with the wind

County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

Grand River Medical Society

Thirty-two members of the Grand River Medical Society, the Auxiliary and guests met at the Strand Hotel in Chillicothe on September 10. A social hour and dinner preceded the meeting.

The program for the evening, under the auspices of the Society's program committee, presented Norma Dunning Farmer, M.D., Presbyterian Homelife, Farmington, Mo. Dr. Farmer practiced medicine for several years in the southern part of the United States and more recently in India near Bombay. Those present enjoyed hearing about her experiences and benefitted from them.

Following the program, the members of the Medical Society and the Auxiliary conducted their separate business meetings.

Members of the Society were unanimous in welcoming Dr. Stanley R. Szymanski to membership in the Grand River Medical Society. Dr. Szymanski is a member of the American College of Radiology, and formerly practiced medicine in Macon and transferred his membership from the Chariton-Macon-Monroe-Randolph County Medical Society.

There being no further business, the meeting was adjourned.

Frank R. Daley, M.D., *Secretary*

SIXTH DISTRICT

COUNCILOR
WILLIAM D. BRADSHAW, M.D.,
CLINTON

Lafayette-Ray County Medical Society

The Lafayette-Ray County Medical Society meeting was held on September 8 at Maib's Cafe in Lexington with 23 members and guests present. Guests were Mrs. W. E. Koppenbrink, Sr., Mrs. W. E. Martin, Dr. and Mrs. Manit Vajaranant and Mrs. William M. Walker, President of the Woman's Auxiliary to the Missouri State Medical Association.

A business meeting followed the dinner. Correspondence was read and the minutes of the previous meeting were read and acted upon.

The election of officers was held with the following being elected: Dr. Herbert Huber, President; Dr. J. S. Cope, Vice-President and President-Elect; and Secretary Treasurer, Dr. Wayne Boydston. Dr. Huber was elected Delegate from Ray County to the MSMA and Dr. Franklin A. Crozier was elected Alternate Delegate for a two-year period. Dr. W. E. Koppenbrink was elected Delegate from Lafayette County with Dr. Jordan Kelling as Alternate, also for a two-year period.

Following the election of officers, the meeting was adjourned.

Wayne Boydston, M.D., *Secretary*

West Central Missouri Medical Society

The regular meeting of the West Central Missouri Medical Society was held at Glen's Cafe in Butler on October 1. Dr. Roy W. Pearse, Nevada, presided.

Dr. Richard A. Guthrie, Assistant Professor of

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Pediatrics at the University of Missouri-Columbia School of Medicine, gave a lecture on the topic, "Care of the Premature Infant and Prevention of Prenatal Mortality." His presentation on the care of the newborn was interesting and enjoyed by all present.

At the business meeting which followed, there was a discussion regarding the directory of the medical, dental health and related facilities of Greater Kansas City. It was noted that it had been voted and approved to participate in the directory at the previous meeting.

Following a report by Dr. Rolla B. Wray of Nevada from the Nominating Committee, it was moved by Dr. Roy Pearse that the following officers nominated by the Committee be elected by acclamation. The motion was seconded and approved.

The officers elected for the coming year are Drs. Robert L. Magee, El Dorado Springs, President; Glen H. Reed, Osceola, Vice-President; and John Torontow, Nevada, Secretary.

Delegates and Alternate Delegates to the MSMA also were selected and are as follows: *Cass County*—Alfred W. Eckland, Pleasant Hill, Delegate and Edward S. Jones, Harrisonville, Alternate; *Bates County*—Carter W. Luter, Butler, Delegate and Arthur Hensen, Butler, Alternate; *St. Clair County*—Don Geisler, Osceola, Delegate and Glen H. Reed, Osceola, Alternate; *Vernon County*—James J. Pascoe, Nevada, Delegate and Rolla B. Wray, Nevada, Alternate; *Cedar County*—Robert L. Magee, El Dorado Springs, Delegate and William B. Richter, Stockton, Alternate.

Following the report of the Nominating Committee, it was noted that the next regular meeting of the West Central Missouri Medical Society will be held on the first Thursday in November (Nov. 5) at Harrisonville.

There being no further business, the meeting was adjourned.

CURTIS W. LONG, *Secretary*

NINTH DISTRICT

COUNCILOR
E. A. STRICKER, M.D., ST. JAMES

SOUTH CENTRAL COUNTIES MEDICAL SOCIETY

The South Central Counties Medical Society held its monthly meeting on September 23 at the Charcoal Corral in Willow Springs.

Hosts for the evening were Dr. and Mrs. Amos Coffee. Members and their wives present were Dr. and Mrs. C. W. Cooper, Dr. and Mrs. Rollin H. Smith, Dr. and Mrs. Joe A. Wall, Dr. William Dreyer, Dr. W. T. Morgan and Dr. Jack Wiles. Mr. Bob Benegoni, medical student and preceptee of Dr. Dreyer, also attended the meeting.

Dr. James Terry, urologist from Springfield, presented an interesting and informative talk on "Office Urological Problems."

JACK N. WILES, M.D., *Secretary*

New Members

David E. Longnecker, M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Longnecker is a native of Kendallville, Ind., received his preliminary education at Indiana University and his M.D. degree at Indiana University in 1964. He specializes in anesthesiology.

Stanley B. Lyss, M.D., 722 S. Meramec, Clayton, has become a member of St. Louis County Medical Society. Dr. Lyss is a native of St. Louis, received his preliminary education at Harvard University and his M.D. degree at Washington University in 1962. He specializes in pediatrics.

Larry E. Millikan, M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Millikan is a native of Sterling, Ill., received his preliminary education at Monmouth College and his M.D. degree at the University of Missouri in 1962. He specializes in dermatology.

Noel F. Weyerich, M.D., 270 Glen Valley Dr., Chesterfield, has become a member of St. Louis County Medical Society. Dr. Weyerich is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1964. He specializes in internal medicine.

Eugene F. White, M.D., 700 W. 11th St., Rolla, has become a member of Mid-Missouri County Medical Society. Dr. White is a native of Potosi, received his preliminary education at St. Louis College of Pharmacy and his M.D. degree at the University of Missouri in 1966. He specializes in obstetrics and gynecology.

Ten Years of Mental Health Progress

(Continued from page 782)

research programs (EEG etc.), through analysis of analog input data.

FUTURE PLANS

The state of Missouri's mental health program at the end of the 1960-1970 decade is like that of a man who has climbed part way out of a very deep well. The going in the early stages may have been hard, but the achievement, in terms of progress measured up from the bottom, has been spectacular and exhilarating.

Now it is time to make realistic judgments about the climb still ahead. For one thing, the well shaft keeps getting deeper. Missouri's population is increasing. Moreover, as the availability of mental health services increases, there will be an increased demand upon these services. This is as it should be, but it virtually guarantees the Division a 10% increase in its workload each year. Furthermore, this increase will have to be met with a staff whose rate of growth is slowing for a number of reasons. The Division's budget has recently been limited to a level insufficient to keep pace with cost-of-living increases, and there is no assurance that it will be restored to levels that once permitted a hard but steady climb over such persistent obstacles as rising costs and expanding workloads. The Division's training facilities, too, are realistically operating close to capacity. Staff increases from now on will be by smaller percentage increments and their effect on the Division's operation will be less spectacular.

"Raiding" Likely

The mental health divisions of other states, equally in need and better financed, will make inroads on the staff Missouri already has. This will become glaringly true if Missouri's mental health budget is not soon restored to a point where annual cost-of-living increases are possible for the staff. Mental health workers are not so dedicated to their duties as to be unaware of what is happening in the world around them. They know, for example, that receiving no salary increase in a year when the general cost-of-living rises by, say, 6%, is exactly the same thing as receiving a 6% pay cut.

The final considerations in this inevitable slowing down of the initial rate of progress are medical or, at least, medico-financial. In reducing overcrowding in its ancient hospitals, the Division was able to make full-impact use of a revolutionary development in psychiatry—the psychotropic drugs. These drugs are as useful as ever, but the rate at which they can effect a reduction in the ranks of hospital patients once considered "hopeless" has slowed. These drugs, plus new welfare programs such as Medicare, also permitted the transfer of many senile patients from hospitals to approved nursing homes. Progress in this direction has now been stopped, and an alarming trend of such patients back to the hospitals has developed for want of budget funds to pay the state's share of Medicare costs. This is not a mere slowing of progress—it constitutes an absolute reversal and the trend is dangerous.

Much of the foregoing is discouraging. What emerges, however, is not that Missouri—after a brilliant start—must content itself with achievement below its original goals—a permanent position, as it were, halfway up the well. This would be quite unacceptable. Programs do not stand still. They either move up or down; and in the downward phase, they tend to accelerate.

New Concepts Needed

What must be sought, therefore, is some new concept to restore momentum and carry the Division's programs forward. Such promise is implicit in the concept of SSOP (Standard System of Psychiatry), the Division's plan to apply automation in a new concept of mental health care delivery. The use of computers in science, industry, national defense and the exploration of space is only about 15 years old, but no other technological development has so profoundly changed every aspect of American life in so short a time. Computerization of clinical data also will have a marked effect in the hospitals of the Division because the fact is that scores of routine hospital procedures, including the daily writing up of patients' clinical reports and the whole cumbersome communication system built around tests and medication are holdovers from psychiatry's horse and buggy days. The automation of clinical record storage and retrieval will multiply effective manpower throughout the Division. Every hour a psychiatrist spends on routine paper work, including the retrieval of information from files and the study of laboriously written clinical records, is an hour he cannot spend in direct communication with his patients. These, however, are the priceless hours that lead to the speedier end of hospitalization and the return of patients to the productive role of citizen-taxpayer. It is precisely these hours of direct communication that the automated clinical data program will make increasingly available.

Psychiatry Has Lagged

Computers are not new to the Division, which is in its fourth year of successfully applying electronic data processing to tasks within its business and administrative sections. This has already paid off handsomely. The Division's plans for the computerization of clinical data, however, date back only to the early months of 1968. Psychiatry throughout America has generally lagged behind the rest of medicine in applying computer techniques to its particular problems. In fact, the statewide automation program being developed by the Division is one of a comparative handful of such programs throughout the world. One reason is that the efficient use of computers by a hospital system requires complete participation by all mental health professionals in the long-range planning and preparation that has to be done before the actual computers can be put to work. In Missouri, for example, five years have been spent just laying the administrative groundwork and it will take a total of seven years before all parts of the new system can be brought into full operation. At the present time, machine readable checklists and questionnaires are being devised by staff members from each of the specialties—psychiatry, psychology, social work, nursing and others. Each group is preparing special forms that will gather precisely the information needed for the treatment of patients.

New Era Ahead

Such a total modernization of communications in the clinical setting, however, is only the beginning. The use of the computer in research will mark the start of a whole new era. This will embrace both long-range projects with deep insights into mental illness and short-term research aimed at immediate results in the form of more effective patient care. For the first time, as basic data, such as mental status examination results and social histories are reported in machine readable format, it will be possible to test and relate observations statistically. Under the present clinical record system, for example, it is a formidable job for researchers to comb laboriously through the complete case files of even a half dozen patients in search of common factors and repeated patterns. Computerization will permit the almost instant sifting of hundreds of cases for such relationships and hundreds more can quickly be cross-checked to test significant findings. Thus, on a scale never before remotely possible, researchers can establish facts and relationships needed to develop a scientific basis for progressive improvement of the techniques and methods of treating patients.

"Next time I take out a group policy, I'm looking at the small print!"

Summary

The future has already set a number of exceedingly hard challenges. An expanding population guarantees an expanding work load. Even more important is the vast need for psychiatric services among Missourians whose present problems are still unrecognized and untreated. The pool of available manpower, meanwhile, will certainly diminish. There are not enough trained mental health professionals to go around now and there never will be.

All this clearly points to the need for the development of new techniques of mental health care delivery. And here, along lines aggressively pioneered in Missouri, automation and the Standard System of Psychiatry offer the brightest possible promise. This automated system can handle routine clinical communication. It can open new areas for research. Above all, it can take over detail and free professional people to do the things that only people can do. When Missouri's small corps of hospital team specialists is freed to work exclusively in therapeutic association with patients, the road will be cleared to shorter stays and longer cures for acutely ill patients and a more nearly self-sufficient life for those who are chronically ill.

This, then, is the next step forward and the only one that offers a realistic prospect of meeting the challenge of the 70's. The groundwork has been done and the Division is confident that in this way momentum can be restored to the delivery of mental health care in Missouri.

CLASSIFIED ADS

GENERAL PRACTICE OPPORTUNITY—Two busy generalists wish to take in third man and form a three-man group. Two large open staff hospitals within short driving distance. $25,000 first year guarantee with early partnership to the right man. Beautiful, clean town with booming economy. Write or call E. F. McDonald, M.D., 215 West Main, Jackson, Mo. 63755.

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DRUG ABUSE PROJECT DIRECTOR—$1,000,000 program. Excellent liaison with local universities. Unusual opportunity for development of innovative techniques. Salary $29,484 per year. Drug abuse experience desirable. Must be able to obtain California license. Requires M.D., masters degree in public health, plus one year related experience. One additional year's experience may be substituted for masters degree. Appointment at lower salary level and future promotion possible for applicant lacking any experience or lacking masters degree. Excellent fringe benefits. Direct resumes to Doctor B. A. Kogan, Director of Medical Services Bureau, Los Angeles County Health Department, 220 N. Broadway, Los Angeles, California 90012. Telephone (213) 625-3212, extension 225.

POSITIONS AVAILABLE—For physicians in Nebraska at Hastings, Lincoln and Norfolk, in general practice at Regional Centers operated by the Department of Public Institutions. Regular hours, fringe benefits, salary $18,000 to $21,000 dependent upon experience and assignment. Inquiries should be directed to Robert G. Osborne, M.D., Medical Director, Department of Public Institutions, P. O. Box 94728, Lincoln, Nebraska 68509, or telephone 402 473-1631.

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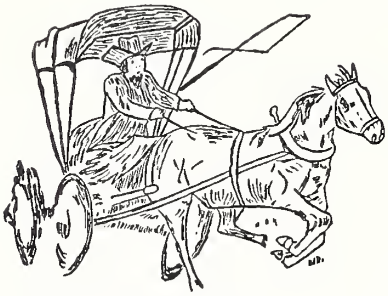
LEO H. POLLOCK, M.D.

Missouri Medicine in Review



FORTY YEARS AGO

"Paramount in a medical career in the United States is the presidency of the American Medical Association. Eighteen men now living enjoy this honor and at the Detroit Session, June 23 to 27, a medal to be worn on official occasions was presented to each of them by the Association. Dr. Edward B. Heckel, Pittsburgh, chairman of the Board of Trustees, made the presentation. The medal bears on one side a profile of Aesculapius, the Greek god of healing, and a rod and serpent, encircled by the words, 'American Medical Association founded in 1847.' On the reverse side appears the name of the recipient and the year of his presidency with a symbolic representation of healing herbs.

"Those receiving the medals and the dates of their presidency were William Williams Keen, Philadelphia, 1900-1901; Frank Billings, Chicago, 1903-1904; William James Mayo, Rochester, Minn., 1906-1907; William Henry Webb, Baltimore, 1910-1911; Rupert Blue, USPHS, 1916-1917; Charles Horace Mayo, Rochester, Minn., 1917-1918; Arthur Dean Bevan, Chicago, 1918-1919; Alexander Lambert, New York, 1919-1920; William Clarence Braistead, U. S. Navy, 1920-1921; Hubert Work, Washington, D. C., 1921-1922; George Edmund de Schweinitz, Philadelphia, 1922-1923; Ray Lyman Wilbur, Stanford, Calif., 1923-1924; William Allen Pusey, Chicago, 1924-1925; William David Haggard, Nashville, Tenn., 1925-1926; Wendell Christopher Phillips, New York, 1926-1927; Jabez North Jackson, Kansas City, Mo., 1927-1928; William Sydney Thayer, Baltimore, 1928-1929; Malcolm La Salle Harris, Chicago, 1929-1930."

TWENTY-FIVE YEARS AGO

J. E. Hanger, Inc., manufacturers of artificial limbs, is this week participating in a nationwide celebration of the 85th year of its founding and service to the armless and legless public. The company is the largest manufacturer of artificial limbs in the world. The business was established by J. E. Hanger, who began to build the first Hanger limb on Aug. 5, 1861.

Mr. Hanger was an engineering student at Lexington, Va. He left school and enlisted in Stonewall Jackson's Brigade. He was severely wounded in the first land battle in that war and is believed to have been the first man on either side to suffer an amputation. He made the first articulated artificial leg he had ever seen and began a business which carried on at Richmond until 1888.

Mr. Hanger was commended personally by the late King George and Queen Mary for his work in rehabilitating British war amputees. The London factory is the largest establishment manufacturing permanent artificial limbs in the world today with an output of approximately 12,000 limbs a year.

TEN YEARS AGO

The medical staff at St. Joseph Hospital, Kirkwood, recently elected Waldo Edwards, M.D., St. Louis, as President. John C. Martz, M.D., was elected President-Elect and James E. Meyer, M.D., was elected Secretary-Treasurer.

Dr. Hugh E. Stephenson, Jr., Columbia, participated in a conference on artificial heart valves for cardiac surgery in Chicago early in September.—Fellowships for research in radiology have been made by the National Academy of Sciences to Gwilym S. Lodwick, M.D., Columbia. The grants are for continuation studies on the vascular and osseous changes occurring in hypertrophic pulmonary osteoarthropathy.

Dr. R. C. Conrad is the newly-elected President of the medical staff of Burge-Protestant Hospital in Springfield. He succeeds Dr. Charles Lockhart. Other newly elected officers are Dr. Robert D. Duncan, President-Elect; Cecil R. Auner, Secretary; and Lyle D. Litton, Treasurer. Dr. E. M. Powell was named a member-at-large of the executive committee.—The medical staff of the Memorial Hospital in Harrisonville elected Jackson C. Moody, M.D., as president of the staff.

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Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Special Article

Relative Annual Frequencies of Cancers, 1940-1970

JOHN S. SPRATT, JR., M.D., M.S.P.H.
Chief Surgeon
Ellis Fischel State Cancer Hospital

CONTINUING OBSERVATIONS on the referral statistics at the Ellis Fischel State Cancer Hospital (EFSCH) are reported. The changing frequencies of different types of cancers are given and the possible significance of the observed changes is discussed. In Missouri, the relative frequency of cancers seen among farmers have decreased and those seen among smokers and those exposed to air pollution have increased. Simultaneously, the population has shifted from a predominantly rural to a predominantly urban distribution. No conclusions regarding causation of trends is possible; a variety of underlying variables could account for these observations. The long time period elapsing between exposure to carcinogenic factors and the induction of human cancers makes cause and effect relations difficult to prove. However, some cause and effect studies have been documented among Missourians and these are cited.

The purpose of this paper is to report continuing observations on the referral statistics at the Ellis Fischel State Cancer Hospital (EFSCH). This report gives the changing frequencies of different types of cancers seen since 1940 and discusses the possible significance of the observed changes.

METHOD

From April 26, 1940 through Dec. 31, 1969, 43,639[1] different cancers have been diagnosed among 37,148 different patients at the EFSCH by histological confirmation. The cancers diagnosed in each category were divided by the total number of cancers diagnosed in each year beginning in 1940. The results are expressed as the relative frequency (%) of different cancers diagnosed annually. The annual percentages were then plotted for various major categories of cancers in search for variations. The results are given graphically in Figs. 1-6.

DISCUSSION

The different types of cancers diagnosed show variation in relative frequency over time. Numerous variables could affect this variation and no cause and effect conclusions, therefore, are possible. Were all the cancer cases in the entire Missouri population similarly documented, certain inferential associations with environmental factors inducing human cancers of different types might be identified.

The long time period elapsing between exposure to carcinogenic factors and the induction of human cancers makes cause and effect relations difficult to prove. However, some cause and effect studies have been extremely well documented among Missourians.[2] Melick has done a most comprehensive job in documenting the progressive appearance of bladder cancers among St. Louis industrial workers, occurring as late as several decades after exposure to xenylamine. Cook has shown a geographic variation among the origin of patients with multiple primary cancers seen at the EFSCH. All of these patients came

According to this report based on continuing observations on the referral statistics at the Ellis Fischel State Cancer Hospital, the cancers seen among farmers have decreased and the cancers seen among smokers and those exposed to air pollution have increased. Dr. Spratt cites the changing frequencies of different types of cancers seen since 1940 and discusses the possible significance of the observed changes. Dr. Spratt also is Director of the Cancer Research Center in Columbia. This investigation was supported in part by USPH Service Grant CA-08023.

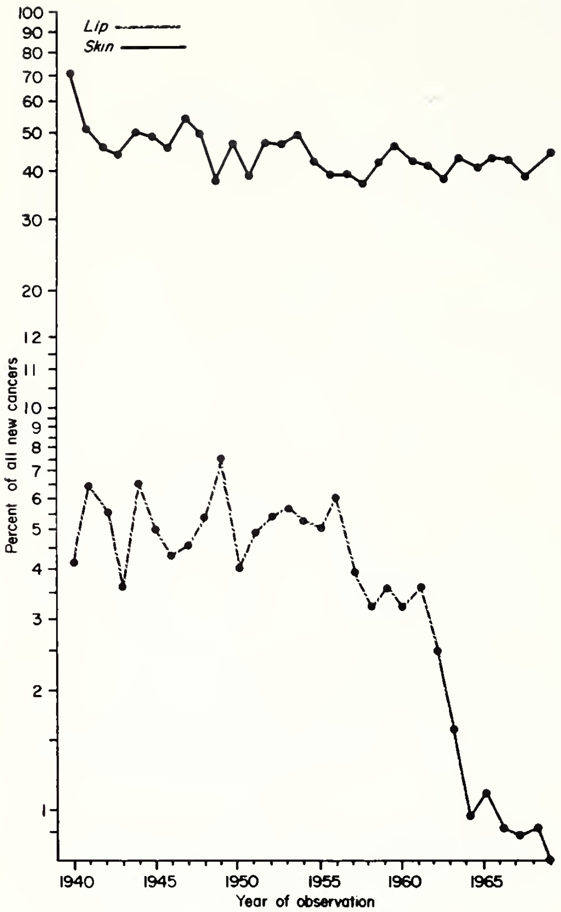

Fig. 1 (Decreasing) Skin. Lip.

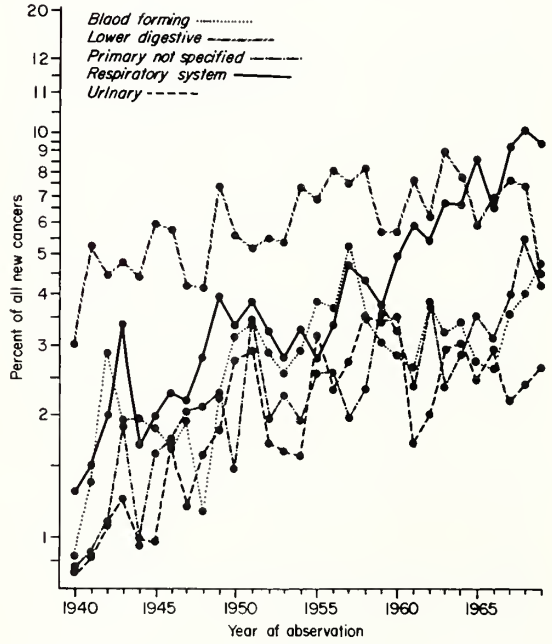

Fig. 2 (Increasing) Primary not specified. Blood forming. Lower digestive. Respiratory system. Urinary.

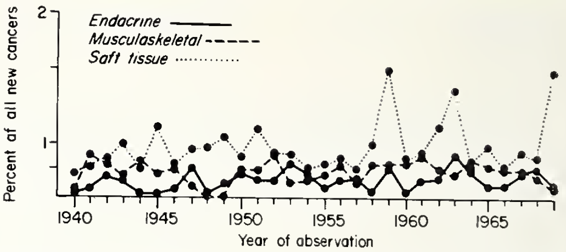

Fig 3 (Constant) Soft tissue. Endocrine. Musculoskeletal.

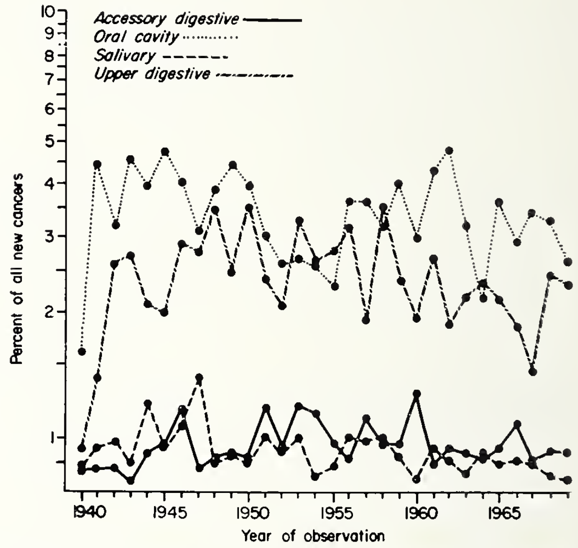

Fig. 4 (Constant) Accessory digestive. Salivary. Oral cavity. Upper digestive.

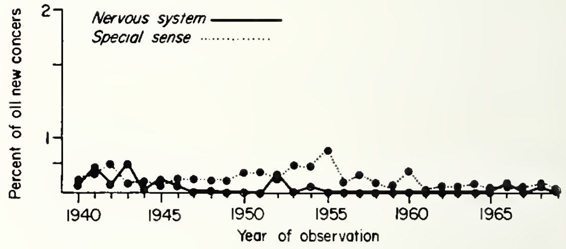

Fig. 5 (Constant) Nervous system. Special sense.

from the 114 Missouri counties and the city of St. Louis.[3–5] The capability of different chemical carcinogens in producing different types of human cancer has been reviewed by comparing animal endemics to human endemics.[6]

Chemical carcinogens may be highly specific for certain target organs and for specific animal hosts depending on the method of exposure and the metabolism of the specific carcinogen. The patterns of carcinogenic exposure can change over time, but the changes may occur a number of years before changes in frequency are observed in human populations. Thus, the identi-

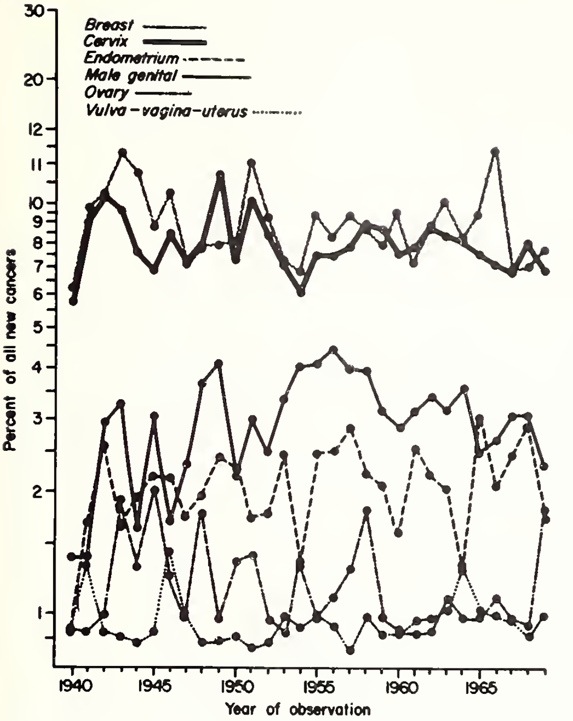

Fig. 6 (Constant) Ovary. Vulva-vagina-uterus. Cervix. Breast. Endometrium. Male genital.

fication of causative factors in the environment could require many decades of carefully monitoring both population and environmental characteristics while both sets of characteristics are subject to continuing change. Causative agents might even have time to disappear from the host's environment before his cancer develops. In a single institution, numerous other medical practice and economic variables over time also might affect the referral pattern and thereby cause variations in the relative frequency of different cancers seen.

With these shortcomings in mind, we can only report our institutional trends and speculate on possible causes (Figs. 1-6). Some variation occurs normally from year to year. Consistent trends since 1940 show a decrement in the frequency of both skin and lip cancer (Fig. 1). Cancers of the respiratory system, blood forming organs, urinary tract and lower digestive tract have shown an increase (Fig. 2).

The primary not-specified group has undergone a progressive increase (Fig. 2). Cancers in this category are cancers dedifferentiated to a point that the organ of origin could not be ascertained by histological appearance of biopsies nor could it be ascertained with certainty by any other physical, roentgen or laboratory examination. A growing frequency of generalized carcinomatosis also was observed in a recent breast cancer study. In this study, Meyer speculated a suppression of the lymph immune system by irradiation to the mediastinum.[7] All carcinogens have the capacity to supress the function of this system. A general exposure to more potent environmental carcinogens also could account for the growing frequency of carcinomatosis from undertermined anatomical sites. Examples of such phenomena are given in the works of Valand and Wynder *et al.* [8, 9]

The frequency of cancers in other sites has stayed remarkably constant. Some variation from year to year obviously occurs, but no major trends are evident (Figs. 3-6).

To reemphasize, no conclusion regarding causation of trends is possible and a variety of underlying variables could account for these observations. A progressive and drastic shift of Missouri's population was occurring before and during the 1940-1970 period. The population changed from one predominantly rural to one predominantly urban. This shift undoubtedly produced an unquantified change in the types of environmental carcinogens to which the population was exposed.[10]

Conclusion

The relative annual frequency of cancers seen among Missouri residents at the EFSCH since 1940 has changed. The cancers seen among farmers have decreased and the cancers seen among smokers and those exposed to air pollution have increased. Simultaneously, the population has shifted from a predominantly rural to a predominantly urban distribution.

Acknowledgement: The author wishes to express appreciation to Freda M. Tarr, Medical Records Librarian, for record keeping and data abstraction.

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PUBLISHED TO REPLACE A PREVIOUS ADVERTISEMENT WHICH THE FOOD AND DRUG ADMINISTRATION CONSIDERED MISLEADING

The Food and Drug Administration has requested that we bring to your attention a recent promotional campaign for Garamycin Injectable (gentamicin sulfate) which featured a nationwide *in-vitro* hospital survey involving a comparison of sensitivity patterns of Garamycin Injectable and seven other antibiotics.

The FDA considers the advertising misleading in several respects such as:

The *in-vitro* chart contained in the ads, which compared Garamycin Injectable with seven other antibiotics, implied that Garamycin Injectable is clinically more effective than the seven other compared antibiotics. THE FACTS ARE (1) THAT DIRECT EXTRAPOLATION OF NONCLINICAL FINDINGS TO CLINICAL EFFECTIVENESS IS UNWARRANTED, AND (2) THAT THE ADVERTISED *IN-VITRO* COMPARISONS DO NOT CONSTITUTE A VALID BASIS FOR SUGGESTING THAT GARAMYCIN INJECTABLE HAS GREATER CLINICAL EFFECTIVENESS THAN THE COMPARED ANTIBIOTICS.

The *in-vitro* chart and information contained under the ad heading, "Indications" presented *in-vitro* data results in such a way as to imply that the drug is indicated for Gram-positive bacteria, such as *Staphylococcus aureus*. GARAMYCIN INJECTABLE IS NOT APPROVED FOR INFECTIONS DUE TO ANY GRAM-POSITIVE ORGANISMS.

We emphasize that Garamycin Injectable is approved for use only in infections due to susceptible strains of gram-negative bacteria, including Pseudomonas aeruginosa, and species of indole-positive and indole- negative Proteus, Escherichia coli, and Klebsiella-Aerobacter.

The Council Reports

Meeting of Oct. 3-4, 1970

Walter T. Gunn, M.D., St. Louis, Chairman, called the meeting to order. Those present were Drs. Gunn; Joseph L. Fisher, St. Joseph; Gerald L. Miller, Kansas City; John I. Matthews, Jefferson City; Max S. Franklin, St. Louis; John N. Martin, St. Joseph; Robert A. Mayer, Clayton; James C. Cope, Columbia; William D. Bradshaw, Clinton; R. Allen Chandler, Kansas City; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; Eugene T. Hansbrough, Poplar Bluff; Doyle C. McCraw, Bolivar; J. Loren Washburn, Versailles; Hector W. Benoit, Kansas City; Stanley S. Peterson, Springfield; William C. Allen and William D. Mayer, Columbia; M. Kenton King, St. Louis; Robert H. Felix, St. Louis; Richardson K. Noback, Kansas City; Charles R. Gulick and Herbert Wiegand, St. Louis; Paul R. Young and John F. McDonnell, Kansas City; Henry V. Guhleman, Jefferson City; George Thoma, St. Louis; Donald M. Spencer, Kansas City; Messrs. John W. Noble, Kennett; Tim Norbeck, Clayton; Hollister Smith, St. Louis; Allen D. Smith, Kansas City; Edward M. Hirsch, St. Joseph; Ray McIntyre, Tom Fox, Bob Carroll, and Royal O. Cooper, Staff, Jefferson City.

The Chairman called the meeting to order at 9:30 AM and introduced Drs. Robert H. Felix, St. Louis University; M. Kenton King, Washington University; and William C. Allen of the University of Missouri-Columbia.

Dr. Gunn requested approval of the minutes of the Council meeting of May 23-24, 1970. On motion, duly seconded, the minutes were approved as published.

The Council stood for a moment in silence in memory of Tom O'Brien and it was suggested that a letter of condolence be sent to Mrs. O'Brien.

REPORT OF THE EXECUTIVE SECRETARY

Mr. McIntyre, on behalf of the Council and guests, expressed gratitude to Dr. Miller for the wonderful time they had on Friday.

Mr. McIntyre called attention to the recent opinion from the Attorney General's office which states that the Missouri law which requires physicians to be citizens of the United States in order to be licensed is unconstitutional. Following this ruling, he stated that approximately 40 foreign physicians were granted Missouri licenses by reciprocity on August 15. On September 18, the State Board of Healing Arts gave the regular examination to about 205 physicians of whom 195 were noncitizens. The results of that examination will not be known until about the end of October.

In view of this situation, there will be a number of licensed noncitizens who will apply to some of our county medical societies for membership. It was pointed out that the Bylaws of MSMA call for citizenship requirement, which also would restrict the county societies to the same requirement. This matter had been referred to our Legal Counsel for study and advice.

Mr. Noble presented a brief explanation of the various sections of the Constitution and Bylaws which pertain to this problem. He stated that since the Council has the judicial and executive power between sessions of the House of Delegates, the logical and legal course would seem to be that the Council by motion suspend the required provision of citizenship as it appears in the present Bylaws.

After further discussion, on motion of Dr. Hansbrough, duly seconded, it was agreed that until such time as the questioned Bylaw can be eliminated at the Annual Meeting, the Council suspend the required provision of citizenship as it appears in the Bylaws on the grounds set forth in the Attorney General's opinion of May 22, 1970, known as Opinion No. 276, and that each county society be informed of this action and that the Council instruct the MSMA Committee on Constitution and Bylaws to prepare amendments to the present Bylaws to conform to this action for submission to the House of Delegates in April, 1971.

Mr. McIntyre reported that he and Mr. Noble attended the AMA Legal Conference held in Chicago on September 18. This is an annual meeting which is attended by members of the various State Associations and their legal counsels. The program included discussion of professional liability insurance. He stated that an AMA committee has been working on a proposed national professional liability insurance program but with little success.

He reported that the AMA Committee will continue to work on this problem and, hopefully, a more complete report will be given at the AMA House of Delegates meeting in December. Mr. McIntyre stated that the MSMA Commission on Medical-Legal Affairs is studying this matter. Information has been gathered from a number of State Associations for the Commission to study.

Jackson County is considering a pilot project of professional liability insurance for their area with CNA. Mr. Smith stated a questionnaire is being sent to the members of the Jackson County Medical Society regarding this proposed project.

Mr. McIntyre reported that the Missouri State Medical Foundation's tax free status has been reconfirmed by the IRS. He stated also that the IRS is looking at medical journal advertising as unrelated income and, therefore, as taxable.

Mr. Fox reported that a meeting of the Board of Trustees of the Missouri State Medical Foundation was scheduled for Friday evening prior to the Council meeting. Because of conflicting circumstances, however, it was necessary to cancel the meeting.

REPORT OF THE TREASURER

Dr. Franklin reviewed the Financial Report which had been distributed to the Council and Officers. He stated that some funds had been invested and are producing reasonable interest. He also stated that we are staying within our budget. On motion, duly seconded, the Treasurer's Report was approved.

REPORT OF COMMISSION ON PUBLIC AFFAIRS

Dr. Guhleman, Chairman of the Commission on Public Affairs, presented a report on the meeting held in Jefferson City on September 20. He stated that nine of the 15 members were present.

One of the items referred to the Commission was the 1971 County Society Officers Conference which is scheduled for January 30-31. Among the points discussed were the need to find ways to make the Conference appealing to young members of the organization, to find out what they want and how to provide the information. Dr. Guhleman reported that Dr. Richard S. Wilbur, Deputy Executive Vice-President of the AMA, has accepted the invitation to be the banquet speaker at the Officers Conference. Dr. Guhleman appointed Dr. Richard Bowles of Liberty as Chairman of an Ad Hoc Committee to plan the Conference.

The next item of discussion was the resolution passed by the MSMA House of Delegates in regard to a possible new member indoctrination program during annual meetings of the Association and, particularly, the portion of the resolution which stated that "a new member be required, as part of his membership requirement, to attend the MSMA annual meeting and be registered for the indoctrination session within three years of starting his practice." In discussion, it was pointed out that possibly this particular portion of the resolution would require a change in the Bylaws of the State Association as well as that of various county societies in regard to membership requirements. Mr. Noble stated that the wording seems to be a little harsh in that their membership could automatically be terminated if they did not meet this requirement and some rather serious complications could develop.

The Commission recommended to the Council that such an indoctrination program during annual meetings be considered, possibly on Thursday, the opening day of the annual session. Dr. Guhleman appointed Dr. Troy Morgan as Chairman of an Ad Hoc Committee which will have charge of planning an indoctrination program upon direction of the Council.

Dr. Guhleman then presented the text of a resolution passed by the MSMA House of Delegates dealing with the subject: "Programs for Rural Emergency Medical Services." It was suggested that work is needed in the field of emergency medical care with the Association working toward establishment of adequate ambulance service in all areas of the state as well as better emergency care. Dr. Allen Klippel was named Chairman of an Ad Hoc Committee on Emergency Medical Services to work with state agencies and others interested in this field. Dr. Crowe will work with Dr. Klippel on this project.

Dr. Neilson outlined the activities of his Ad Hoc Committee on Environmental Health and mentioned two projects now in progress: (1) The disposal of hospital solid waste and (2) air pollution and its effects on the health of man. Dr. Sweet of St. Louis and his committee proposed a research study and evaluation of air pollution problems. Monies were forthcoming from the medical societies of St. Louis ($700), St. Louis County ($350) and MSMA ($350). The $1,400 was turned over to Dr. Sterling as the investigator. He has been working on the project. Dr. Neilson reported that his Ad Hoc Committee, under the Public Affairs Commission, will keep abreast of these activities.

Dr. Guhleman reported that Dr. Morgan was named Chairman of an Ad Hoc Committee on Medicine and Religion; Dr. Kendis was named Chairman of an Ad Hoc Committee to study the problems of alcoholism and drug abuse and, also, to work with county societies to provide programs and assistance in the field of alcoholism and drug abuse.

After further discussion on the various items, on motion of Dr. McAlhany, duly seconded, the report of the Commission on Public Affairs was approved except the portion regarding indoctrination of new members, which was referred back to the Commission for further study.

Dr. Gunn presented a letter received from Dr. Wolfgram of Mental Health Associates in St. Louis regarding the resolution passed by the MSMA House of Delegates concerning Medicaid Coverage of psychiatric patients and what steps had been taken to carry out this resolution. It was pointed out that the resolution was referred to the Division of Welfare, but they have taken no action on this specific item. After discussion, it was suggested that the letter from Dr. Wolfgram be referred to the Commission on Medical Economics, Third Party Medicine and Governmental Relations.

REPORT OF THE COMMITTEE ON PLANNING

Dr. Cope presented the minutes of the Committee on Planning in the absence of Dr. Kerr, the Chairman. Dr. Cope reviewed the action of the Committee and noted items of interest which the Committee has been considering, such as peer review, the licensure of allied health personnel, insurance relations, etc.

One item of discussion was the problem of professional liability insurance coverage. It was suggested that the new Commission on Medical-Legal Affairs seek more information concerning the malpractice situation in Missouri along with possible solutions to the problem. On motion, duly seconded, this portion of the report was referred to the Commission on Medical-Legal Affairs.

The next item discussed was the mandatory emergency physician call roster in hospitals which is becoming a growing problem in many communities and is a real crisis for medical staffs. The Committee also considered the problem of securing physicians for outstate communities.

After further discussion of the latter two items, it was agreed that they be referred to the Commission on Medical Education and Health Manpower for further study, recommendation and activation.

The Committee also discussed the need for active speakers bureaus in all sections of the state. It was noted that even though some county societies do maintain such bureaus, they are not taking an active role in making the availability of such speakers known to organizations in the area. This item was referred to the Commission on Public Affairs.

Dr. Cope stated that some news media in the state made use of the statement proposed by the Planning Committee and approved by the Council relating to cutbacks in the Missouri Medicaid Program.

On motion, duly seconded, the report of the MSMA Committee on Planning was approved.

PRESIDENT'S REMARKS

Dr. Fisher reported he had had the pleasure of attending the Kentucky State Medical Society meeting which was very interesting. He said the program is designed to keep all members together the first two days. At the end of the session, they had a noon luncheon which was attended by more than 500 people, namely, ancillary personnel, nurses, dentists, druggists, lawyers and other allied personnel. Awards were presented to the lawyers, a number of doctors and some of the nurses and to one of the leading clinical teaching professors. This gives the profession a much stronger hold on matters of medicine throughout the entire state. He also stated that Kentucky takes a strong stand against cultists.

Dr. Fisher called attention to the fact that young physicians just starting in practice within our state have a higher cost of overhead. They have to buy their equipment, home and, perhaps, a new office building. Their overhead is much higher now than in years past, and no fee schedules are available to guide them in setting fees for their services. He suggested that some helpful information on these matters might well be made available for young physicians.

Dr. Fisher also called attention to the University of Missouri's Postgraduate Program. He stated that some of the smaller hospitals might like to have a program in the morning and to avail themselves of a speaker. We could find out what subject or subjects they were interested in. He noted the Councilors could pass this information on to their constituents and tell them to write to the University of Missouri and let them know what they would like to have. They can have a half day or all day program with a professor or associate professor and, possibly, can have wet clinics.

REPORTS OF THE DISTRICT COUNCILORS

Dr. Martin reported that the First Councilor District meeting will be held on October 21. Dr. Noback will be the guest speaker. Dr. Martin also reported that a regional planning survey regarding hospital needs is being made in their area by Tom Weil of the University of Missouri. He stated that some of the recommendations being made are rather revealing and need consideration. One of the problems is hospital emergency rooms—staffing, cost, etc. Also, there are ambulance problems.

Dr. Martin also mentioned the lack of liaison with other allied personnel, such as pharmacists, dentists, hospital administrators, nurses, etc. He suggested getting together with the Missouri Pharmaceutical Association and other groups in order to keep up with what is going on.

Dr. Gunn, Third District, reported St. Louis Medical Society had an excellent Athletic Sports Injuries Conference which was well attended. He also stated that the area Peer Review committee met for the first time and that St. Louis will have Rubella Week October 24.

Dr. Robert Mayer, Councilor of the Fourth District, reported a very successful meeting on September 9 at Stouffer's Inn, sponsored by the St. Louis City and St. Louis County Medical Societies with Dr. Jose L. Garcia Oller, New Orleans, La. as the speaker. The meeting was attended by members of the staffs of most of the city and county hospitals which held their own meetings prior to the general meeting. Four hundred and sixty-seven people attended.

Dr. Mayer also reported that the Fourth Councilor District meeting, which was planned for October, had been cancelled and will probably be held in November with Dr. Egeberg as the featured speaker. He also reported on a special meeting of the St. Louis County Medical Society Council to discuss the Bennett Amendment. Telegrams were sent to the AMA and to Washington voicing their opposition to this amendment.

Dr. Nobeck reported the AMA is not supporting the Bennett Amendment as was erroneously reported by a columnist. He stated that the Board of Trustees are opposed to it and that there is very little support for it throughout the country.

Dr. Bradshaw reported on a problem in the Sixth District regarding ambulance service. He stated that with the current government regulations regarding ambulances in rural Missouri the ambulance service is being wiped out and they have to call Kansas City to get an ambulance which is almost prohibitive because of cost.

Dr. Chandler reported for the Seventh District stating that the professional liability insurance, which had been alluded to earlier, formed the greater part of his report. He expressed appreciation to Dr. Fisher for the Association letter sent to Proctor Carter regarding the cuts in Medicaid payments. He then read a resolution adopted by the Jackson County Medical Society regarding the reduced benefits under the Medicaid (Title XIX) Program.

Dr. McAlhany reported that the featured speakers at the Eighth Councilor District meeting held in May in Springfield were Dr. Fisher and Dr. Richard Wilbur of AMA. They were well received. He reported that Greene County Medical Society held its annual Athletic Injuries Conference in August. He stated that Greene County Medical Society had issued a policy statement regarding physicians' reimbursement under the Medicaid Program, which was sent to the Division of Welfare. He also indicated that his District is having a problem with ambulance service.

Dr. Stricker reported that the Ninth Councilor District held a meeting on Athletic Injuries in September. Speakers for the evening were MSMA President, Dr. Fisher; David Scherr, Assistant Professor of Orthopedic Surgery, University of Missouri; and Norm Stewart, Head Basketball Coach for the University of Missouri. He reported that the hospital emergency room in the Rolla Hospital has been running quite smoothly. One physician runs the emergency room, with coverage from other physicians on his days off.

Bill O'Malley

"Now, don't worry about your work at the office. Jones is doing it on his coffee break."

Dr. Hansbrough reported that the Tenth Councilor District held a meeting in Cape Girardeau on June 7. Guest speaker for the banquet was Sen. Stuart Symington. The afternoon session featured representatives from Comprehensive Health Planning, MRMP, Blue Cross and Blue Shield, General American Life, Division of Welfare and MMPAC. Dr. Fisher also appeared on this program.

Dr. Hansbrough indicated that his particular area is involved in three different Regional Medical Programs—Memphis, Missouri and Bi-State. He said that he understood that Bi-State RMP had gone on record as saying that health care delivery was their No. 1 concern. He wondered what this might mean in regard to our present health care delivery system.

He stated that Butler County has had a private ambulance company for about two years which is operating at a loss every month. He felt that an ambulance service operating in a county under a population of 40,000 would require subsidization. Dr. Hansbrough indicated that he felt manning of an emergency room was no particular problem with a group practice.

GUEST SPEAKER FOR ANNUAL BANQUET

Dr. Fisher reported that the guest speaker for our Annual Banquet at the 1971 Annual Session will be Russell B. Roth, M.D., Speaker of the AMA House of Delegates. Dr. Roth is in the private practice of medicine in Erie, Pa. and is an excellent speaker.

REPORT OF COMMISSION ON INTERSPECIALTY MEDICINE

The following report of the Commission on Interspecialty Medicine was presented by Dr. Gulick, Chairman of the Commission, and Dr. Stoneman, one of the members of the subcommittee appointed to study the feasibility of a physician assistants program in Misssouri.

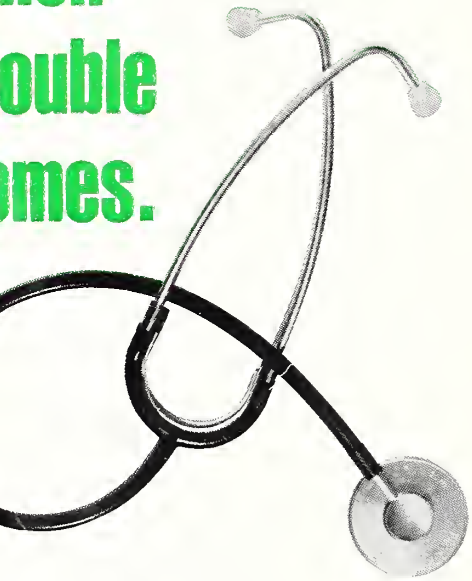
Dr. Gulick indicated that the Commission on Interspecialty Medicine met on July 26 at the Chase-Park Plaza Hotel in St. Louis. He reported that Dr. Miller described in some detail the proposed MSMA peer review program.

Dr. Gulick reported that Dr. George Wakerlin, representing the MRMP, described a proposed renal disease control program. The program will include all stages of the disease beginning with prevention and ending with rehabilitation and will include all sources of funds and contributions of talents from all institutions, volunteer agencies and local, state and federal governments. The Commission approved in principle, "Preliminary Planning for a Regional, State or Multi-Regional Renal Disease Program," subject to official confirmation by the MSMA Council.

On motion of Dr. Mayer, duly seconded, the Council approved the "Preliminary Planning for a Regional, State or Multi-Regional Renal Disease Program." The motion carried.

Dr. Gulick reported that the Association had received an inquiry from the Children's Hospital Research Foundation, Inc., Columbus, Ohio, seeking endorsement of a project on "Evaluation of Nutritional Status of Preschool Children in the U. S." Preschool children in 74 communities in 40 states will be included in the study and Adair County, Missouri is one of these primary sample units. This request was referred to Dr. Francis Lieb,

(Continued on page 886)



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Preliminary Program
113th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

Chase-Park Plaza Hotel, St. Louis **April 15-18, 1971**

Thursday, April 15

11:00 AM Registration of Delegates.
1:30 PM House of Delegates Meeting, opening session.
4:30 PM Reference Committee Meetings.

Friday, April 16

8:00 AM Registration.
9:00 AM *Medicare-Medicaid, Why the High Cost?* (Panel Participants and Moderator to be announced.)
10:30 AM Intermission to view exhibits.
11:00 AM Continuation of *Medicare-Medicaid Program.*
11:00 AM *Parkinson's Disease* (Sponsored by St. Louis Society of Neurological Sciences.)
Panel Participants:
The Effects of L-Dopa on Parkinson's Disease, George H. Klinkerfuss, M.D., St. Louis.
Surgical Aspects of Parkinson's Disease, Claude Bertrand, M.D., Montreal, Canada.
12:00 Noon MSMA Maternal Welfare Luncheon (Sponsored by the Missouri Obstetrical and Gynecological Society.)
University of Missouri Alumni Luncheon.
2:00 PM *Drinking, Drugs, Dropping Out and Dissent* (Sponsored by the Missouri Academy of Psychiatry.)
Moderator: David Davis, M.D., Columbia, President, Missouri Academy of Psychiatry.
Panel Participants:
Jack H. Mendelson, M.D., Boston, Mass.
R. Raymond Knowles, M.D., St. Louis.
Donald W. Goodwin, M.D., St. Louis.
2:00 PM *Organization for Emergency Department Care.*
Moderator: Oscar P. Hampton, Jr., M.D., St. Louis, Assistant Director, Trauma Activities, American College of Surgeons.
Panel Participants:
J. Cuthbert Owens, M.D., Denver, Colo.
Louis P. Hetlage, M.D., Troy.
2:45 PM *Induction of Ovulation,* James C. Warren, M.D., Kansas City, Kan. (Sponsored by Missouri Obstetrical and Gynecological Society.)
3:30 PM Intermission to View Exhibits.
4:00 PM House of Delegates, second session.
5:30 PM Missouri State Medical Foundation Annual Meeting.
6:00 PM Reference Committees.

Saturday, April 17

8:00 AM Registration.
9:00 AM Program on Sex.
(Panel Participants and Moderator to be announced.)
9:00 AM *Symposium on Coronary Artery Disease* (Jointly sponsored by Missouri State Surgical Society and Missouri Heart Association.)
Moderator: Brent M. Parker, M.D., President, Missouri Heart Association.
Panel Participants:
Indications for Coronary Arteriography, J. Gerard Mudd, M.D., St. Louis.
Medical Therapy for Angina Pectoris, Gerald A. Wolff, M.D., St. Louis.
Surgical Therapy—Coronary Artery By-Pass Grafts, George C. Kaiser, M.D., St. Louis.

Carotid Sinus Nerve Stimulator Implantation, Arthur E. Baue, M.D., St. Louis.

10:30 AM Intermission to View Exhibits.

11:00 AM Panel on *X-Ray Negative Upper G I Bleeding.*
Moderator: Edward D. Kinsella, M.D., St. Louis.
Panel Participants:
The Role of the Surgeon, Walter F. Ballinger, M.D., St. Louis. (Sponsored by the Missouri State Surgical Society.)
The Diagnosis of Upper Gastrointestinal Bleedings by Angiography, P. Ruben Koehler, M.D., Salt Lake City, Utah. (Sponsored by Missouri Radiological Society.)
John F. Morrissey, M.D., Madison, Wisc. (Sponsored by Missouri Society of Internal Medicine.)

11:00 AM Program on *Ophthalmology,* H. Saul Sugar, M.D., Detroit, Mich. (Sponsored by Missouri Ophthalmological Society, Inc.)
Moderator: Robert C. Drews, M.D., Clayton.

11:45 AM Panel on *Otolaryngology.*
Moderator: Joseph H. Ogura, M.D., St. Louis.
Panel Participants:
The External Ear-1971, Donald G. Sessions, M.D., St. Louis.
Cervical Maxillofacial Trauma, Mark May, M.D., St. Louis.
Highlights in Treatment of Head and Neck Cancers, Joseph H. Ogura, M.D., St. Louis.

12:30 PM General Luncheon.
Fifty-Year Club Luncheon.
Missouri Ophthalmological Society Luncheon.

2:30 PM *Different Systems for Delivery of Health Care.*
Moderator: George H. Ladyman, M.D., Poplar Bluff.
Panel Participants:
National Health Insurance, Mr. Robert J. Myers, Silver Spring, Maryland.
Group Practice, Edward M. Wurzel, M.D., Executive Director, American Association of Medical Clinics, Alexandria, Va.
Prepaid Plans, C. C. Cutting, M.D., Executive Director, The Permanente Medical Group, Oakland, Calif.

2:30 PM Program on *Immunology* (Sponsored by Missouri Chapter, American Academy of Pediatrics.)
Moderator: Francis X. Lieb, M.D., St. Louis.
Panel Participants:
James D. Cherry, M.D., St. Louis.
(Second Participant to be selected.)

3:15 PM *Immunosuppressive Drug Therapy in Connective Tissue Diseases,* William E. Reynolds, M.D., Medical Director, The Arthritis Foundation, New York, N. Y.
Moderator: Robert H. Ramsey, M.D., Florissant.
Panel Participants:
Lester E. Wolcott, M.D., Columbia.
Jack Zuckner, M.D., St. Louis.
(One other Participant to be announced).
(Sponsored by the St. Louis Rheumatism Society.)

4:00 PM Intermission to View Exhibits.

6:30 PM Social Hour for those attending the Banquet.

7:15 PM Annual Banquet in Honor of Past Presidents of MSMA.
Guest Speaker, Russell B. Roth, M.D., Erie, Pa., Speaker of the House of Delegates, American Medical Association.

Sunday, April 18

7:30 AM House of Delegates Meeting, breakfast and final session.

WASHINGTON

The American Medical Association challenged charges of widespread tax cheating by physicians and renewed its offer to cooperate with the government in cracking down on dishonest doctors.

In letters to Sen. Russell B. Long (D., La.), chairman of the Senate Finance Committee, Walter C. Bornemeier, M.D., President of the AMA, answered the tax cheating charges and Ernest B. Howard, M.D., Executive Vice President of the AMA, renewed the offer of cooperation. But Howard also said that mandatory reporting of unassigned fees by insurance agencies would be an ineffective and unfair way to try to uncover doctors cheating on their income taxes on payments for their services under Medicare and Medicaid.

The tax-cheating charges grew out of testimony given by Meade Whitaker, who then was tax legislative counsel for the Treasury Department, at a hearing of the Senate Finance Committee during its consideration of changes in the Medicare and Medicaid programs. He said that many providers of services under the two health care programs might have "substantial deficiencies" in their income tax returns.

In a letter to Long and Sen. Wallace F. Bennett (R., Utah), a ranking minority member of the finance committee, Dr. Bornemeier said that the charges had been widely distorted in the press and these reports do the medical profession a serious injustice.

Whitaker testified that from an original list of 11,000 who received payments of $25,000 or more for services rendered under Medicare and Medicaid in 1968, 4,000 returns warranted a detailed audit by the IRS.

With preliminary audits completed on 3,000 of the 4,000 returns, there were indications that 1,500 of these showed "substantial deficiencies," the Treasury reported. "Substantial deficiencies" later were defined as being underpayments of more than $100.

Dr. Bornemeier said that this testimony was being widely interpreted to mean either that one third of the medical profession was cheating (4,000 of 11,000 cases to be audited) or that one half of the profession was cheating (1,500 alleged offenders from 3,000 actual audits).

"Assuming the worst—that 1,500 doctors out of 11,000 are guilty of income tax irregularities—the correct proportion would be between 13% or 14% rather than 33% or 50%," Dr. Bornemeier said.

The AMA president called on the Treasury Department to be specific in their charges since the interpretation by the press growing out of their testimony reflected on the profession as a whole.

"As of now," he continued, "there seem to be 1,500 cases where substantial deficiencies may exist. I think we should know what proportion of these cases represents cause simply for further examination and what proportion represents cases that may realistically be expected to end up with the fraud division of the IRS.

"I think we should know what proportion of the serious cases involve physicians. I suspect the figures given include osteopaths, dentists, pharmacists and optometrists and others eligible to receive Medicare-Medicaid payments."

Dr. Bornemeier told Long that his request for documentation of these cases was not a defense for the dishonest physician or anyone else who attempts to falsify an income tax return.

"We are on record," the Chicago physician said, "as requesting examples of wrongdoing by doctors receiving payments under government health programs so that we may take action of our own."

Dr. Howard said that "the dishonest or incompetent physician hurts us just as much as he harms his government."

Dr. Howard said that a recent statement by Long that the AMA had been "completely forthright and honorable, and sought to shield no one" is "exactly our position."

The AMA official also noted that Long at a recent hearing of the finance committee had referred correctly to previous requests by the AMA that it be given examples of suspected chicanery by physicians in government health programs "so that we might take our own action."

As for mandatory reporting of unassigned medical payments—those given to the patient rather than to the physician—Dr. Howard said such a requirement "would not provide the Internal Revenue Service with helpful and meaningful data." He urged rejection of such an amendment proposed by the Treasury Department. A joint House-Senate conference committee rejected it last year in considering tax reform legislation.

The Treasury Department proposed that Blue Cross-Blue Shield organizations, Medicare and Medicaid agencies and other health insurance carriers be required to report unassigned payments for medical services.

Dr. Howard pointed out that millions of patients have more than one health insurance policy and may collect total benefits exceeding the physician's charge, and that some patients even may not use the insurance payment to compensate the physician. Physicians also would have to set up costly additional bookkeeping record procedures to list separately and in detail each charge to a patient in excess of $25, the AMA official said.

medical melange

Notes of interest from Here . . . . and There

Dr. Emmett F. Hoctor, Farmington, has received an honor citation which the Missouri Academy of General Practice presents each year to a Missourian who has provided outstanding leadership in the improvement of health care in Missouri. Dr. Hoctor, who was in charge of the Farmington State Hospital for many years, has retired from those duties and has created for himself other avenues of service to the mentally ill through his outpatient department at the hospital and his caravan trips into other parts of the state. Presentation of the award was made during the Academy's annual banquet held in conjunction with the Annual Scientific Assembly at the Plaza Inn in Kansas City on October 10.

Dr. Richard A. Sutter, St. Louis, and **Dr. Lee Blount**, St. Louis, have received plaques from the Herbert Hoover Boys' Club in that city in appreciation for medical services rendered to the club's 3,000 members during the past two years. The Award was presented by **Mr. Carl P. Wood**, executive director of the club, who said that both physicians have given physical examinations to members and treatment to club athletic teams.

Dr. Robert W. Edmonds, Sedalia, has been selected by the American Academy of Pediatrics to serve as a Head Start consultant for Missouri. Dr. Edmonds is among more than 6,000 physicians selected by the Academy in the field of child health to evaluate the medical aspects of Head Start programs in nearly 2,000 communities throughout the United States and various territories.

Dr. Loren E. Broaddus has been elected chief of staff at the Lester E. Cox Medical Center in Springfield. He will succeed **Dr. William M. Walker.**—**Dr. Othello Dale Smith**, director of the Department of Pathology at Baptist Memorial Hospital in Kansas City, has been elected president of the hospital's staff. **Dr. Herbert H. Virdin**, director of the Department of Radiology, was presented the dedicated physician of the year award.

Dr. Rolla B. Wray, Nevada, who has served as unit medical advisor for the Vernon County Cancer Society for the past 24 years, has resigned from that position and has announced his retirement from both the county and state cancer society boards. **Dr. Roy Pearse**, Nevada, has been appointed as Dr. Wray's successor.

Dr. John McHaney, Jefferson City, has been reappointed to the Missouri State Mental Health Commission by Gov. Warren E. Hearnes. Dr. McHaney was originally named to the Commission by Governor Hearnes and became the first general practitioner to serve on the Board under revised statutes changing the composition of the Commission which directs the Missouri Divison of Health.

New Opinion by Attorney General Limits Activities of Chiropractors

Missouri Attorney General John C. Danforth, on November 10, issued a seven-point opinion concerning the practice of chiropratic and a new law which licenses professional physical therapists in Missouri.

The opinion, No. 239, was written in answer to a request from Joe D. Holt, Missouri State Representative from Fulton.

The opinion stated that chiropractors in Missouri are prohibited from prescribing and administering vitamins and food supplements to their patients and reaffirmed a court decision which held that ear drops, vitamin pills and pills used purely for psychological effects constituted medicine as defined in the chiropractic practice act.

The opinion also said that chiropractors are prohibited from using physical therapy devices and that a chiropractor may not, in describing himself to the public, use the words "physiotherapy" or "physical therapy."

But the opinion did hold that there is no violation of the law when manufacturers of vitamins, food supplements, ultra-sound, diathermy, colon irrigator or other therapeutic devices have booths at chiropractic meetings or hold seminars or mail literature to chiropractors for the promotion of their products.

In an opinion concerning the new professional physical therapist licensing law in Missouri, the Attorney General said that a person who performs professional physical therapy as described in the new law and is not under the direction of a licensed physician is practicing medicine in violation of the law.

The following is a point by point listing of the Attorney General's conclusions as written in Opinion No. 239.

1. The provisions of Section 334.500 through Section 334.620 RSMo 1969, relating to the practice of professional physical therapy do not enlarge the scope of chiropractic practice to include the use of therapeutic devices.
2. The decision of State ex rel. Gibson v. Missouri State Board of Chiropractic Examiners, 365 S.W. 2d 773 (K.C.Ct. App. 1963) which held that ear drops, vitamin pills, and pills used purely for psychological effects constituted medicine within the statute defining the practice of chiropractic as not including the administration or prescribing of any drug or medicine, is still legal precedent in Missouri.
3. Section 331.010, RSMo 1969, prohibits a doctor of chiropractic licensed by the State of Missouri from prescribing and administering vitamins and food supplements to his patients.
4. A person who performs professional physical therapy as described in Section 334.500, RSMo 1969, not under the direction of a licensed physician is practicing medicine in violation of Section 334.010, RSMo 1969, regardless of whether he is a professional physical therapist or an unlicensed person.
5. Even though a chiropractor does not hold himself out as a professional or licensed physical therapist, he may not utilize physical therapy devices in his professional capacity as a chiropractor and charge a patient for his professional services as the utilization of such devices are beyond the scope of chiropractic practice as set forth in Section 331.010, RSMo 1969.
6. A chiropractor in describing himself to the public must do so by calling himself a doctor of chiropractic if he uses the prefix "Doctor" or "Dr." and may not in describing himself to the public insert the words "physiotherapy" or "physical therapy" after the word chiropractic so as to read "chiropractic physiotherapy" or "chiropractic physical therapy" for the reason that he would be in violation of Section 564.

MSMA
News

(Continued on Back of Page)

Association Objects to Bennett Amendment Points

The Missouri State Medical Association, in a telegram to Missouri Senators Stuart Symington and Thomas F. Eagleton on November 16, listed a series of objectionable provisions in the Bennett Amendment to HR 7550 which seeks to establish a system of peer review for governmental health programs.

The telegram called for careful evaluation before any legislative enactment is passed in the field of peer review and included the suggestion that if the proposed substantive changes cannot be made this year that no legislation pertaining to peer review be acted upon until the next Congress.

Objectionable provisions as outlined in the telegrams to Missouri's Senators:

1. The State Medical Association should be the group to have the responsibility and obligation to provide for the peer review plan within their state. This is the cornerstone to effective peer review program.
2. There is no assurance that a review of physician's services will be done by his peers since the secretary of HEW may designate a public or private organization to act as a review organization.
3. The requirement of Advance Review of Admissions of health care facilities for elective procedures would often create difficulties and would not be in the best interest of the patient.
4. The provision calling for review of all institutional providers is too broad. Peer review should be confined to physician services and other services over which the physician has direct control. Hospital and other services should be reviewed by their peers.
5. National or regional norms of health care services for various illnesses and health conditions should not be adopted because they are potential detriments to the provision of high quality care.
6. An effective national system of peer review can be established without restructuring American medicine.

OPINION (Continued)

290 and 331.060, RSMo 1969.

7. Booths at chiropractic conventions by vitamin, food supplement, ultrasound, diathermy, colon irrigator or other therapeutic device manufacturers and the holding of seminars and the mailing of literature to chiropractors for the promotion of such items is not in violation of Chapter 331, RSMo 1969, and Section 561.660, RSMo 1969.

The opinion was prepared by Assistant Attorney General B. J. Jones and was approved by Attorney General Danforth.

OFFICER CONFERENCE ON JANUARY 30-31

The Fourth Annual County Society Officer's Conference of the Missouri State Medical Association will be held on Saturday afternoon and Sunday morning, January 30 and 31, 1971 at the Ramada Inn in Jefferson City.

The meeting is designed for officers of county medical societies in Missouri but is open to all members of the Missouri State Medical Association.

The program will open at 1:30 p.m. on Saturday and conclude with a luncheon at noon on Sunday. There will be a reception and banquet on Saturday night.

The banquet speaker will be Richard Wilbur, M.D., Deputy Executive Vice President of the American Medical Association. Dr. Wilbur will also serve as a discussion leader on Sunday morning's program.

Among highlights of the program will be presentations concerning activities of the State Medical Association as well as county societies, a panel discussion by newspapermen concerning relations between the medical profession and the press, and a look at medicine of the future as seen by a medical student guest speaker.

As in past years there will be a discussion session on Sunday morning at which time participants will have the opportunity to bring up their own topics of interest and concern.

Presidents and secretaries of county medical societies will also attend special 30-minute sessions on Sunday morning.

County Society Officer's
Conference

January 30-31, 1971

MAIL TO:
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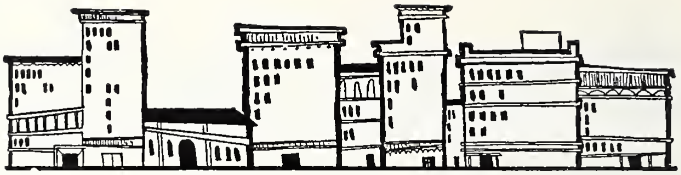
From the Medical Schools



ST. LOUIS UNIVERSITY

(Left to right) **Dr. John H. Gladney, retiring president of the St. Louis University Hospitals medical staff, presents the gavel to incoming president, Dr. Robert H. Ramsey.**

Dr. Robert H. Ramsey, assistant clinical professor of internal medicine at the St. Louis University School of Medicine, has been elected president of the St. Louis University Hospitals medical staff. His term of office is for a one-year period. He succeeds Dr. John H. Gladney, assistant clinical professor of otolaryngology at the School of Medicine. Dr. Gladney has presided over all general meetings of the St. Louis University Hospitals staff for the past year. Dr. Ramsey assumed this new responsibility on October 19. He formerly was vice president of the University Hospitals medical staff.

Dr. Donald R. Judd, formerly secretary and treasurer, assumed the office of vice-president. Dr. Edward M. Wittgen, Jr., assistant clinical professor of orthopedic surgery, was elected secretary and treasurer.

Founders Week observances held at St. Louis University on October 18-25 were highlighted by four scientific programs which ran simultaneously for medical alumni, Friday, October 23. One of the sessions featured alumni merit award winner Dr. Harvey Itano, a 1945 alumnus.

Dr. Itano, professor of pathology, University of California, spoke on "Abnormal Configuration of Hemoglobin" at a program sponsored by the department of internal medicine. At this meeting, Dr. James B. Lee, director, Section of Experimental Medicine, lectured to visiting physicians on "Prostaglandins: A New Therapeutic Tool in Hypertension?" Dr. Edwin Westura, director, Cardio-Pulmonary Section, spoke on "Glucagon in Management of Cardiovascular Disease."

Other scientific programs were sponsored by the Department of Gynecology and Obstetrics headed by Dr. Denis Cavanagh, the Department of Surgery headed by Dr. V. L. Willman and the Department of Neurology and Psychiatry headed by Dr. Edward T. Auer. Some of the papers discussed at these sessions included one by Dr. Hanna Klaus, assistant professor of psychiatry, entitled "Teenage Obstetrics" and one by Dr. Duane Hagen, assistant professor of psychiatry, titled "Recent Innovations in Sex Education." From the Department of Surgery, Dr. George Kaiser discussed "Current Revascularization" and Dr. J. E. Lewis, clinical professor of surgery, read a paper entitled "Cojoined Twins."

UNIVERSITY OF MISSOURI

Scott Serrill and William Johnson, both fourth-year medical students of the University of Missouri-Columbia School of Medicine, presented research papers on November 7 at the annual meeting of the Mid-West Section of the American Federation for Clinical Research in Chicago.

Their papers are two of only 12 selected for presentation at the hematology section of the conference. They competed with those sent in by many scientists throughout the Mid-West Section which consists of a large group of states including Michigan, Minnesota, Iowa, Ohio, Indiana, Kentucky, Arkansas, Oklahoma, Louisiana, Tennessee, Mississippi, Texas, New Mexico, Missouri and Illinois.

Serrill, whose home is in Kansas City, spoke on the "Effect of Hyperoxia and Tocopherol Deficiency on Methemoglobinemia" and Johnson, from Rochelle, Ill., spoke on "In Vivo Production of Hydrogen Peroxide in Red Cells." Both students' work was conducted under the sponsorship of Dr. Charles E. Mengel, professor and chairman of the Department of Medicine.

John J. Gleason, Jr., has been appointed chaplain at the Mid-Missouri Mental Health Center and the University of Missouri-Columbia Medical Center. He began his duties on October 1.

A native Virginian, he received a B.S. degree in business administration at the University of Missouri in 1956, a bachelor of divinity degree at Southern Seminary, Louisville, Ky., in 1962 and a master of theology degree last year from Columbia Seminary, Decatur, Ga.

Mid-Missouri Mental Health Center and Mid-Missouri Chaplain Corporation will provide direct costs to the new chaplaincy program. The Mid-Missouri Chaplain Corporation is a new not-for-profit corporation which receives funds from churches, organizations and individuals interested in supporting the chaplaincy program.

WASHINGTON UNIVERSITY

Philip Handler, Ph.D., president of the National Academy of Sciences, gave the dedication address at the ceremonies opening the McDonnell Medical Sciences Building at Washington University School of Medicine on October 17, 1970.

DeWitt Stetten, M.D., director of the National Institute of General Medical Sciences, also spoke for the Department of Health, Education and Welfare.

The building was constructed at a cost of $10.6 million, with $6.3 million coming from private gifts (principally from the James S. McDonnell family) and University funds and the remainder from federal construction grants.

Mr. McDonnell is chairman of the board of directors of McDonnell Douglas Corporation. He is a former chairman of the University's board of trustees and of the medical center's board of directors.

The opening of the new building permits the school to enlarge its entering classes and its Ph.D. program in the fundamental sciences. Research by preclinical investigators and postdoctoral teaching activities also is expanded. Because the top three levels were constructed as shell floors, there is space for emerging disciplines.

At the request of the McDonnell family and the Executive Faculty, nine areas in the building have been named for the following distinguished scientists who have worked in the school's medical science laboratories: Carl F. Cori and Gerty T. Cori, Joseph Erlanger, Philip A. Shaffer, Edmund V. Cowdry, Herbert S. Gasser, Jacques J. Bronfenbrenner, Robert A. Moore, Leo Loeb and Eugene L. Opie.

Ronald G. Evens, M.D., has been elected to a newly-formed executive position of the Board of the Washington University Medical School and Associated Hospitals. He will serve as vice-president of the Medical Center and be charged with the responsibility of examining and developing the relationships of the medical center with the community, including both professional and non-professional groups. The Medical Center is composed of Barnard Free Skin and Cancer Hospital, Barnes Hospital, St. Louis Children's Hospital, the Jewish Hospital of St. Louis, Central Institute for the Deaf and the School of Medicine.

Henry G. Schwartz, M.D., August A. Busch, Jr. Professor of Neurological Surgery, has received the Distinguished Service Award from the American Board of Neurological Surgery. The honor was given "in recognition of his superior leadership as chairman of the board for 1968-1970 and in appreciation of his outstanding contribution to his profession." Dr. Schwartz has been on the Washington University faculty since 1936, and was promoted to professor of neurological surgery in 1946. He was appointed to the Busch Professorship in February of this year.

The new McDonnell Medical Sciences Building at the Washington University School of Medicine was dedicated on October 17. The new nine-story structure serves as the focus for teaching and research programs in the basic sciences.

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Volume 67, Number 12—December, 1970

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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WILLIAM L. DONEGAN, M.D., ***Columbia***

Patterns and Prognosis of Advanced Breast Carcinoma

Through an analysis of the initial sites of distant metastasis and survival characteristics after dissemination, observations are made of the pattern of spread of advancing carcinoma of the breast and its prognostic implications. The 1,647 cases analyzed in this paper were selected from cases of clinically or pathologically diagnosed breast carcinomas seen at Ellis Fischel State Cancer Hospital between 1940 and 1965. Dr. Donegan is Surgeon and Associate Scientist at EFSCH and the Cancer Research Center and Associate Professor of Surgery, University of Missouri School of Medicine. This investigation was supported by Cancer Clinical Research Center Grant No. CA-08023-05 from the U. S. Department of Health, Education and Welfare, National Cancer Institute, National Institutes of Health, Bethesda, Md.

Many of the 67,000 women in the United States who now develop cancer of the breast annually will be permanently cured. An increasing proportion of cases are diagnosed and treated while still clinically localized, and over the last 20 years, the five year relative survival rates of affected women have shown progressive improvement.[1] (Relative survival rate is the ratio of the observed percentage of survivors to the percentage expected on the basis of general population experience. Thus, survival rates may be compared for patient groups that differ with respect to sex, age and calendar period of observation.)

The fact remains, however, that the majority of women are not permanently free of their disease. Projected survival rates at 20 years are 60% less than the expected normal for the affected population.[2] This excess mortality can be attributed to the claims of persistent and recurrent cancer and is evidence that the problem of uncontrolled breast cancer is a continuing one of considerable magnitude.

Familiarity with the clinical course of incurable cancer is important to the clinician for estimating prognosis, for anticipating patient needs and for evaluating palliative therapy. A continuing review of collected clinical material at the Ellis Fischel State Cancer Hospital (EFSCH) has allowed some observations upon the pattern of spread of advancing cancer of the breast and its prognostic implications.

Materials and Methods

Two thousand six hundred twenty-one cases of clinically or pathologically diagnosed breast carcinoma were seen at the EFSCH during the 25-year period between 1940 and 1965. Pertinent clinical and pathological information from these clinical records have been coded, key punched on cards and made suitable for computer analysis through the facilities of the Cancer Research Center in Columbia.

For the purpose of this analysis, only cases were selected in which invasive carcinoma of the breast was proven histologically and in which distant spread of the disease was clinically or pathologically documented at some time before the patient's death. Since interest was in dissemination as a clinical phenomenon, asymptomatic disease discovered at autopsy only was not accepted. If no mastectomy had been performed, distant spread was considered metastasis beyond the breast and the axillary lymphatics. If a mastectomy had been performed it was considered spread beyond the axilla and the boundaries of the dissection. Local recurrence within skin flaps was not considered distant metastasis.

Actuarial survival after the diagnosis of dissemination was computed over ten years and survival cures were compared for significant differences with Myer's method.[3]

Results

Sites of Initial Distant Metastasis. Distant dissemination of disease was documented in 1,647 cases. A frequency distribution of the sites initially involved is shown in Fig. 1.

Lymph nodes were the first site of distant spread in the majority of cases. Bones and lung or pleura also were often targets for initial dissemination. In 18% of cases, multiple areas of spread were diagnosed simultaneously. Abdominal viscera and the brain were at low risk as initial sites, while the skin and opposite breast were of intermediate frequency.

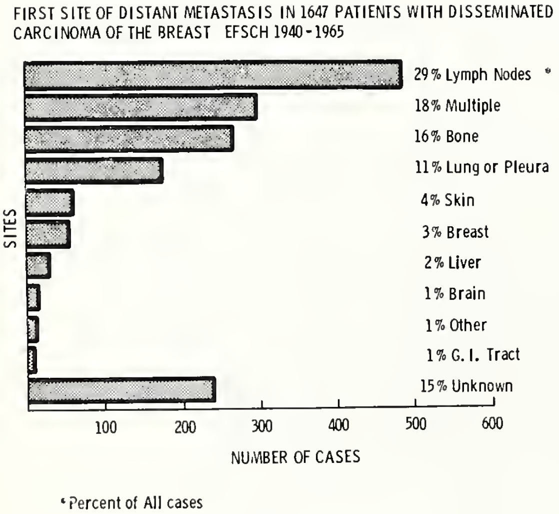

Fig. 1

Axillary Metastases as a Determinate of Further Dissemination. The sites of primary dissemination varied somewhat depending upon whether axillary lymph nodes were known pathologically to contain metastases before dissemination occurred. The histologic status of the axilla was known in 637 cases. Axillary metastases were present in 502 cases and absent in 135. The frequency distribution of the distant sites initially involved and the percent of the total cases in each site were diagramed in Fig. 2.

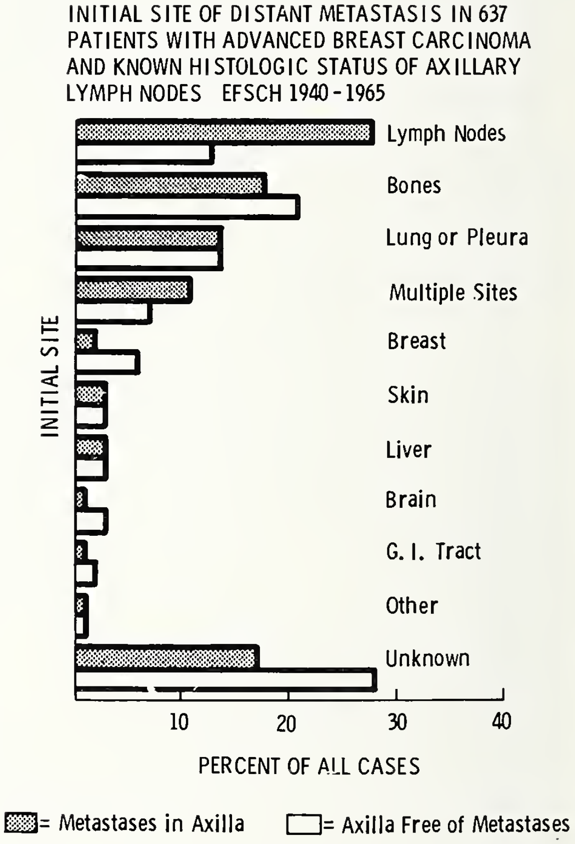

Fig. 2

Patients with axillary metastases presented most often with initial dissemination to lymph nodes or bone, while those with a free axilla were most likely to present with metastases in bone or lung and pleura. Significant differences by Chi square testing were found between the two groups in the involvement of lymph nodes, brain and breast. Patients with axillary involvement had a higher frequency of primary dissemination to additional lymph node groups. Patients without axillary metastases had a higher frequency of brain and breast metastases.

These data suggest that cancers prone to metastasize early to regional lymphatics also tend to persist in this course in their early dissemination and that those not so inclined are more likely to reach their initial targets through vascular routes.

Overall Prognosis. It was possible to determine the duration of survival from the date that distant metastases were first diagnosed in 1,091 cases. Fig. 3 shows the actuarial survival of the entire group. Mortality during the first two years after dissemination was precipitous. Less than half of the patients survived for one year and only 6% survived as long as five years. The survival curve assumed a more gradual decline after five years. Apparently some disseminated cancers allowed the host to endure for an extended duration, although survival for as long as ten years was unusual.

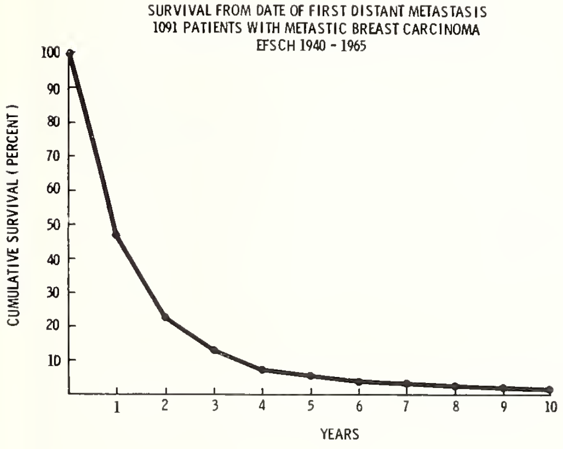

Fig. 3

Site Specific Prognosis. The actuarial survival of patients varied depending upon the initial site of dissemination as shown in Fig. 4. Prognosis was best when metastases first appeared in lymph nodes, the skin or the opposite breast. Involvement of the abdominal viscera had the poorest prognosis. The survival of patients with initial spread confined to the bone or lung (or pleura) was of intermediate duration as was that of those with involvement of multiple sites simultaneously.

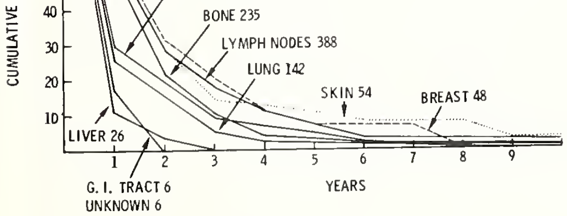

Fig. 4

The survival curves were tested for statistically significant differences. Patients with lumph node, skin or opposite breast involvement appeared to be in a single group prognostically; no difference could be shown between their respective survival curves. It was found that the survival of patients with initial dissemination to lymph nodes was significantly greater than that of patients with dissemination to bone (Chi square = 5.8, $p < .02$), to lung (Chi square = 23.9, $p < .001$), to liver (Chi square = 19.9, $p < .001$) and to multiple sites (Chi square = 11.3, $p < .001$). Although smaller numbers were involved, the same tended to be true for patients with skin metastases and metastases to the opposite breast, i.e., patients with skin metastases had significantly greater survival than those with hepatic (Chi square = 13.6, $p < .001$), pulmonary (Chi square = 6.1, $p < .02$) and multiple site (Chi square = 6.6, $p < .01$) metastases. Patients with metastases to the breast also were prognostically superior to those with pulmonary (Chi square = 6.4, $p < .02$), hepatic (Chi square = 14.4, $p < .001$) and multiple site (Chi square = 6.2, $p < .02$) metastases.

Survival was significantly greater if bone was first involved than if lung was the first site (Chi square = 7.8, $p < .01$) or liver (Chi square = 15.2, $p < .001$) or if sites were multiple (Chi square = 4.8, $p < .05$). Early pulmonary spread may be a relatively poor prognostic sign. If the initial spread was to the lungs, the survival was not demonstrably superior to that if liver or multiple organ system involvement was first.

Early simultaneous spread to multiple sites could not be distinguished prognostically from spread to the lungs, but it was modestly superior to liver involvement (Chi square = 3.92, $p < .05$).

The prognostic import of peritoneal or gastrointestinal involvement, including ascites without hepatomegaly, was similar to that of hepatic metastases although the cases were few. The brain was involved initially in only eight cases and the survival, which is not shown in Fig. 4, also was poor.

Cumulative Sites of Metastases. In order to analyze in greater detail the behavior of progressing breast cancer, all sites of clinically

TABLE 1

TOTAL FREQUENCY OF CLINICALLY INVOLVED ANATOMIC SITES DURING COURSE OF 108 CONSECUTIVE PATIENTS WITH POST-MASTECTOMY RECURRENT BREAST CARCINOMA

Site	*Number*	*Percent*
Lymph nodes	48	44
Chest wall (local)	47	43
Bone	46	42†
Lung or pleura	43	39*
Intra-abdominal	29	27
Skin	19	17
Central nervous system	11	10
Breast	9	8

* Pleural effusions occurred in 21 patients (19% of the 108 patients).

† Pathologic fractures were documented in 22% of all cases and involved long bones in 4.6%.

apparent spread and the sequence of occurrence were documented throughout the entire clinical course of 108 consecutive patients who died of dissemination following mastectomy. The patients were followed on the wards and in the outpatient clinic of the Ellis Fischel Hospital until their death or until shortly before their deaths, and metastases were documented from their clinical records and from the reports of physicians who attended the patients terminally.

Table 1 summarizes the total percent of patients who had clinically recognized involvement of each anatomical site prior to their demise. Lymphatics, the mastectomy site, bones and the lung and pleura were all almost equally favored targets of the disease, being involved ultimately in from 39% to 44% of cases. Pleural effusions eventually occurred in 19% of all patients and, sometimes, produced troublesome symptoms.

Almost half (44%) of the 46 patients who developed osseous metastases suffered pathologic fractures, most frequently of the vertebra. Eleven percent of the patients with osseous metastases sustained fractures of the long bones (three femora, one tibia and one humerus) and internal fixation of the fracture was performed in two cases. Of the total 108 patients, pathologic fractures of long bones occurred in 4.6%.

No instance of spinal cord involvement or paraplegia from vertebral fracture was found in this series. Central nervous system involvement was uniformly of the brain and often evolved clinically as a "stroke."

Hepatomegaly consituted 20 of the 29 instances of abdominal visceral involvement. Metastases to the esophagus and stomach which produced dysphagia and pain were documented in one case.

Cumulative Dissemination Versus Survival. In Fig. 5 the duration of survival after diagnosis of initial recurrence is plotted against the cumulative number of sites involved throughout the clinical course. Each site represented a different organ system except for local recurrence on the chest wall, which also was included in the number. Short survival seemed to be able to stem from either rapidly progressive multiple organ involvement or from incapacitation of a single vital organ system. Although in some cases the disease never became clinically evident in more than one or two sites and allowed the host many years of life, in general, the longer the host was able to survive, the further the disease advanced through the body and the greater became the total number of clinically involved organ systems.

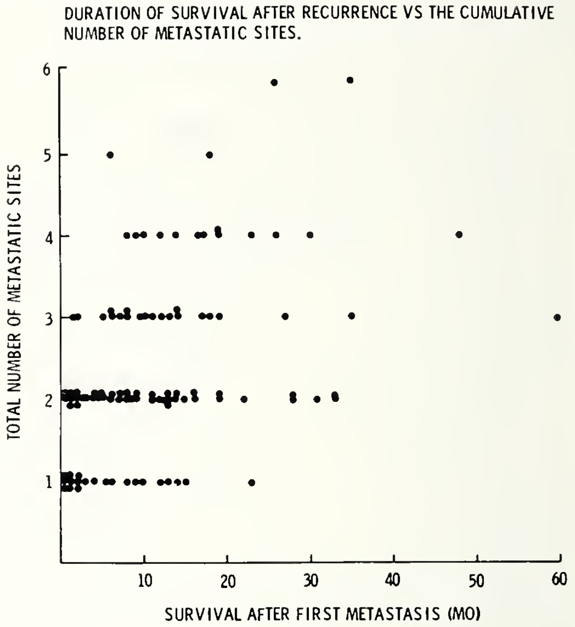

Fig. 5

Sequence of Metastasis. It happened that in many of the 108 cases selected for further study the initial dissemination of cancer was to multiple sites (22.2% of cases). If the cases were selected in which the initial spread was to a single site, the data could be used to predict the next most probable site of involvement (alone or in combination) and, thus, the next step in the clinical evolution of the disease.

TABLE 2

COINCIDENCE OF METASTASES TO BONE, LYMPH NODES, LUNG OR PLEURA AND LOCAL CHEST WALL DURING THE CLINICAL COURSE OF 108 PATIENTS WITH POSTMASTECTOMY RECURRENCE OF BREAST CARCINOMA

Site	BONE −	BONE +	LYMPH NODE −	LYMPH NODE +	LOCAL −	LOCAL +
Local +	32 (30%)	13 (12%)				
Local −	28 (26%)	35 (32%)				
Lung or pleura +	27 (25%)	16 (15%)	25 (23%)	19 (18%)	13 (12%)	21 (19%)
Lung or pleura −	35 (32%)	30 (28%)	35 (32%)	29 (27%)	38 (35%)	26 (24%)
Lymph node +	29 (27%)	18 (17%)			24 (22%)	24 (22%)
Lymph node −	33 (31%)	28 (26%)			37 (34%)	23 (21%)

The percentages indicate the percent of the total 108 patients with the particular site combination.
+ = Metastases present
− = Metastases absent

In 21 cases in which lymph nodes were the first site of distant metastasis, the disease next appeared most frequently in bones (24.3%) and in lungs or pleura (24.3%). The initial recurrence was locally on the chest wall in 24 cases after which the next most favored targets were the lymph nodes (20.8%) and the lungs or pleura (also 20.8% of cases). No further spread was detected clinically in ten or 43.5% of 23 cases in which initial spread was isolated to bone, but if further dissemination was detected, it was most frequently to lungs or pleura (21.7%). Isolated pulmonary or pleural involvement was primary in five cases, the most frequent immediate sequel to which was dissemination to bones (two cases).

Concurrence of Metastases. The total cases with concurrence during their clinical course of any two of the four most frequent single sites of clinical recurrence, i.e. bone, lung or pleura, local chest wall and lymph nodes are shown in Table 2. The frequency with which the members of each pair occur without the other is very similar, and there is a uniform tendency for little joint occurrence throughout, which is most marked when local recurrence and osseous dissemination are involved. For this particular combination, the dissociation can be substantiated statistically. Osseous metastases and local recurrence coexist in the same patients significantly less often than one would expect from chance alone (Chi square = 7.56, $p < .01$). For the remainder of the combinations, there could be demonstrated no factor either favoring or not favoring their occurrence. Chance based upon individual frequencies could explain their coexistence during the patients' clinical course.

Discussion

Considering the predilection for breast carcinoma to disseminate initially to lymph node groups, bones and lungs or pleura, the physician is well advised to direct his attention particularly to these areas, both in his preoperative evaluation of the apparently curable patient and his follow-up of patients after mastectomy. Such guided suspicion will allow the early identification of those patients who are candidates for palliative therapy. Of particular note is the high frequency of clinical involvement of the ipsilateral supraclavicular lymph nodes. In 25% of all cases of recurrence, metastases first appear in this site.[4] The frequency is increased if the tumor has previously demonstrated a predilection for spread through lymphatics. The practice of routinely obtaining a preoperative x-ray of the chest and of any sites of bone pain is well founded.

Analyzing 725 cases of disseminated breast cancer following mastectomy, Cutler *et al* found variation of survival according to the number of sites involved by metastases, but little variation according to specific site. Patients with hepatic, peritoneal and central nervous system metastases, however, had notably brief survival and constituted a uniquely poor prognostic group.[5] Cutler *et al* suggested that the number of involved sites generally correlated well enough with prognosis to form the basis of a staging system for disseminated breast cancer.

The EFSCH data (which include patients without respect to whether mastectomy had been performed) do not allow an assessment of prognosis according to the number of sites involved, but do suggest that when a single site is involved, consideration should be given in staging of advanced disease to the organ system affected. The sites of initial involvement were found to have a significant influence upon subsequent survival. Soft tissue metastases, i.e., the lymph nodes, opposite breast and skin, had the most favorable prognosis, and patients with osseous metastases survived better than those with visceral involvement. The present study confirms that patients with hepatic metastases and probably those with intraperitoneal involvement have an extremely poor prognosis; less favorable than when dissemination occurs to multiple sites. Although patients with lung and pleural metastases seemed to survive somewhat better than those with liver involvement, it was not possible to support a difference statistically. Therefore, prognostic subgroups within the visceral category could not be established. Considered as one category, multiple system involvement carried a prognosis similar to that of patients with isolated dissemination to lung or bone, but changes in composition of the multiple involvement might be expected to change this relationship. There is little doubt that a well formulated staging system for disseminated breast cancer enveloping primary inoperable and recurrent cases and taking into consideration both site and multiplicity of involvement would be of value for evaluating palliative treatment.

One must perhaps invoke such concepts as tumor growth rate, the biological nature of the tumor or variable host resistance to explain why some cancers disseminate rapidly and widely while others proceed at a more measured pace. In either case, the ability of the host to survive appears to be associated with progressive dissemination of the disease to many organ systems until some intolerable situation results. Breast cancer is no respector of tissues, and in autopsy series, the wide dissemination of the disease is frequently impressive. The data presented illustrate that metastases often are clinically silent, for the antemortem diagnosis of site specific involvement was little more than half the frequency of involvement usually found at autopsy.[6]

A limited effort was made in this study to trace the temporal sequence of clinical dissemination to organ systems. It is evident that probabilities can be established regarding the likelihood and sequence in which various sites become involved by advancing breast cancer. This information can help the clinician to anticipate the need for the various palliative agents at his disposal.

It is important to be aware that the course of disseminated breast cancer can be chronic, lasting for many years. Because multiple organ systems become involved by the disease with the production of varied and complex therapeutic problems, optimum management of this large and challenging body of patients requires patient and informed attention from the physician and often the skills and cooperation of physicians in a number of clinical disciplines.

Summary

The hospital records of one thousand, six hundred forty-seven patients with advanced carcinoma of the breast were reviewed to determine the initial site of distant metastasis and survival characteristics after dissemination. In addition, all sites of clinically diagnosed metastases were determined during the clinical courses of 108 patients with recurrence after mastectomy. Lymph nodes, bone and lung constituted the most frequent distant sites involved primarily by metastases. After the first diagnosis of dissemination, fewer than half of the patients lived for one year. Patients with soft tissue metastases had a better prognosis than those with osseous or visceral metastases. Involvement of the liver or gastrointestinal tract was an extremely poor prognostic sign. The multiplicity of organ system involvement increases with survival and forms the basis for a variety of clinical problems.

Acknowledgement: The author wishes to express appreciation to Frank R. Watson, Ph.D. and Richard Le Duc for statistical consultation and programming.

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JOSE M. HORI, M.D., ***Columbia***

Granular Cell Ameloblastoma of the Mandibular Symphysis

Case Report

In GENERAL, ameloblastomas are slow-growing, odontogenic tumors which are relatively uncommon and of many disputable histological origins. The rare "Granular Cell" type is now accepted as a distinctive entity, but its significance remains unknown. Most of these cases have been reported in middle-aged or elderly patients and usually in the same location as the most common type of ameloblastoma. Recently, a case of granular cell ameloblastoma occurring in the symphysis of the jaw in a teenager was discovered in our laboratory.

CASE REPORT

A 13-year-old Negro boy was admitted to Ellis Fischel State Cancer Hospital on March 27, 1967 with a three-week history of painless swelling of the anterior portion of the mandible. On examination, a 5 cm x 2 cm mass was found in the middle of the mandible with slight predominance toward the left and pushing the gingiva outward. A roentgenogram of the mandible (Fig. 1) showed a multiloculated, radiolucent cyst in the anterior portion with deformed incisor teeth and a nonerupted left incisor in the base of the cystic lesion. The cyst was curetted and filled with bone chips. After 22 months, the lesion showed no evidence of repair but, on the contrary, appeared to have grown. In January, 1969, with a previous tracheostomy, the patient had an excision of the anterior portion of the mandible (Fig. 2). Twenty months after this operation, the patient remains free of recurrence.

The biopsy from 1967 was reviewed. It showed plexiform epithelium with columnar cells, basal nuclei and the appearance of ameloblasts. The central portions disclosed stellate reticulum cells, but no eosinophilic granuar cells were identified at that time. The second specimen consisted of the anterior portion of the jaw. It measured 10 cm x 5 cm x 2.5 cm and presented three incisors, two canines and four premolars. The incisors appeared unaligned due to the absence of one of them. The missing incisor

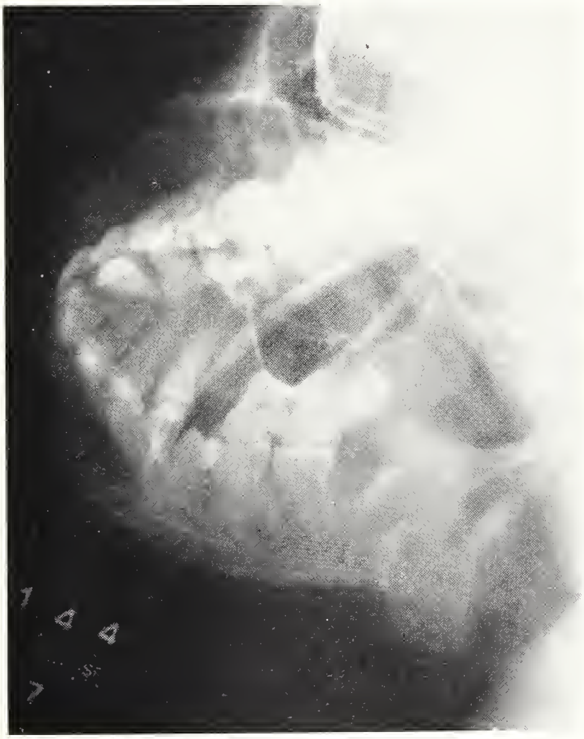

Fig. 1 The mandible demonstrating a multiloculated, radiolucent area in anterior portion of the mandible.

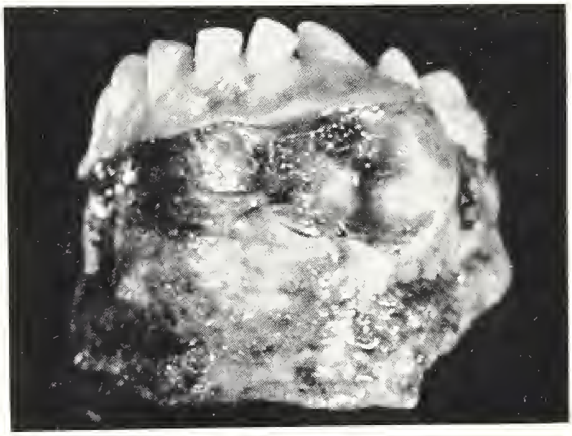

Fig. 2 Excision of the mandibular symphysis with bulging mass in the midline. Distortion and unalignment of incisors; one on left is missing.

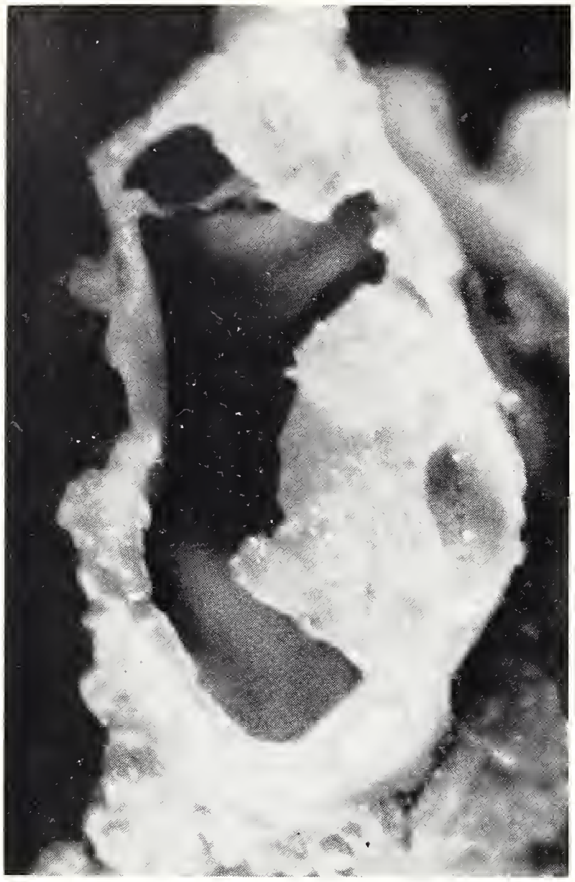

Fig. 3 A-P section of surgical specimen with partially collapsed anterior wall. Most of tumor appears collected in posterior wall. Note impacted incisor at base of the cyst.

was found at the base of the cyst, imbedded in the wall (Fig. 3). Sections through the midline disclosed a 5 cm x 2 cm unicameral cyst occupying the entire mandibular symphysis and containing milky fluid. A spongy white mass, 2.2 cm x 1.6 cm, was found attached to the posterior wall of the cyst and extending up to the root of the right lateral incisor. The rest of the cyst's wall was surrounded by a thin, smooth, fibrous capsule.

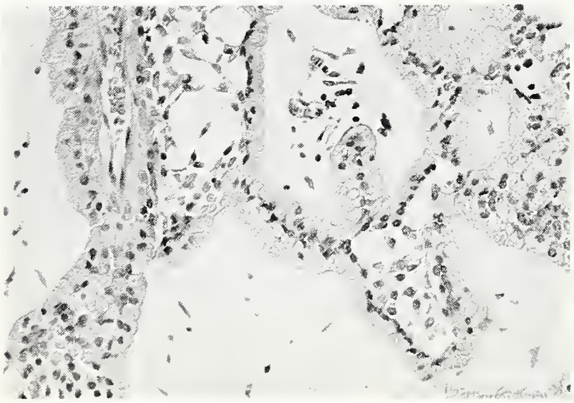

Fig. 4 Tall columnar epithelium formed by large granular cells with basal nuclei (×350).

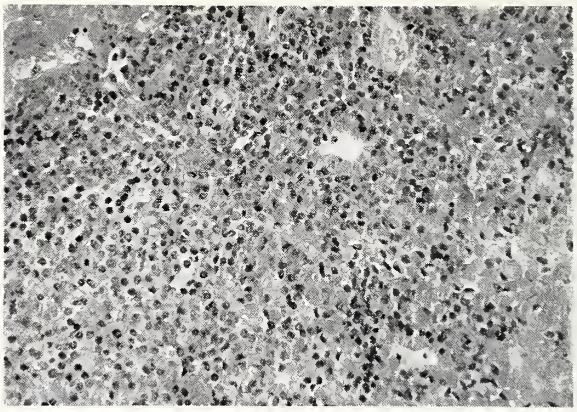

Fig. 5 Cellular areas showing typical granular cells and peripheral "ghost cells" (H & E, ×350).

The microscopic examination disclosed a cyst lined by thin, nonkeratinizing, stratified, squamous epithelium separated from the bone by a thin layer of fibroconnective tissue. The intracavity growth appeared composed of a mixoid-like substance containing papillary strands of granular epithelial cells (Fig. 4). The granular cells were uniform; their cytoplasms were packed with PAS positive granules and their nuclei were small, round and eccentrically located (Fig. 5). Typical odontogenic epithelium was recorded in many areas (Fig. 6). The peripheral cells demonstrated a polarized, tall columnar arrangement with the classical follicular pattern. Several stellate reticulum cells were present in the center of some of the islands. The growth was confined to the limits of the cyst. A submental lymph node showed moderate reticulum hyperplasia.

DISCUSSION

Ameloblastomas generally tend to occur in males in a proportion of two to one. They have been reported in all age groups, but the highest incidence is between the third and fourth decade. About 2% of the cases have been described

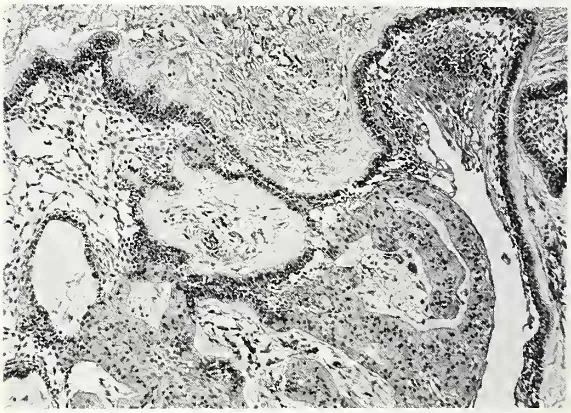

Fig. 6 Typical odontogenic epithelium with polarized, tall columnar cells at the periphery and gradual transformation into a simpler but larger granulated cell epithelium (bottom half) (×150).

between zero and nine years of age, and 9% between ten and 19 years of age. It has been estimated that 2% to 4.5% may become malignant. Between 80% and 90% of all the cases are reported arising in the mandible and the remaining in the maxilla.

The molar and ramus area accounted for 70% of the primary location; 20% were found in the premolar areas and 10% in the symphysis. Cystic changes are found in about 42% of them.[1] In Stanley's report[2] of 108 cases of ameloblastomas associated with follicular cysts or impacted follicles or both, he found 80.5% of cases occurred between the ages of ten and 29. The most common tooth involved was the third molar, and among the less commonly affected were the permanent incisors.

Since 1956, a histological variant of ameloblastoma has been accepted as a different entity.[3] The lesion probably was described originally by Krompecher in 1918; he thought it was a pseudoxanthomatous component of an ameloblastoma.[4] Later on, through the works of Frantz and Stix,[5] Shafer and Spivey,[6] Campbell,[3] Smith[7] and others, this entity became more clearly delineated as a specific histological entity.

The granular cells are now believed to be of epithelial origin. Not infrequently, they are mixed with "ghost cells" which are probably the final stage of a degenerative process. The granular cells have been studied with special stains[3] and found to present metachromasia with toluidine blue, but negative for mucicarmine. The PAS stain has been reported from weak to strong by different investigators.[6, 8] Because of its tinctorial affinities, it has been related to squamous cells, which are not uncommonly associated with this type of tumor. The transition between granular cells and stellate cells, and less often between granular cells and columnar cells, has been reported. It is important to emphasize that these kinds of cells have been recognized in other entities such as congenital epulis, granular cell myoblastomas and ameloblastic fibroma. In those particular cases, however, the cells are considered to be of mesenchymal origin.

A report of an unusual case of granular cell ameloblastoma occurring in the symphysis of the mandible. The author also reviews and illustrates data compiled from previously reported cases. Dr. Hori is Associate Pathologist at Ellis Fischel State Cancer Hospital.

Among the different theories suggested to explain the origin of these cells, it has been said that they (1) represent a degenerative (aging) process, (2) are of mesodermal structure, such as fibroblasts, (3) are of cementoblast origin or, as more people now believe, (4) are derived from the enamel organ.[9–11]

The prognostic significance has not been evaluated adequately, mostly because of the scarcity

TABLE 1

GRANULAR CELL AMELOBLASTOMAS

Author	*Year*	*Age*	*Sex*	*Mandible Location*
Frantz & Stix[5]	1932	76	F	( ) Ramus and body
Sirsat[17]	1952	30	M	( ) Molar
Shafer & Spivey[6]	1954	79	M	(L) Premolar to midline
Campbell[3]	1956	29	M	(L) Canine to molar
		55	M	(R) To midline
Hodson[13]	1957	47	F	( ) Molar
McCallum[14]	1957	29	F	(R) Side
		22	F	(R) Side
		41	M	(R) Side
Mallik[8]	1957	36	M	(R) Side
Gorlin[15]	1960	45	F	( ) Molar
		57	F	( ) Premolar to molar
		48	M	( ) Molar
Smith, J. F.[16]	1964	18	M	(L) Incisor to (R) Premolar
Tsukada *et al*[11]*	1965	62	F	(L) Side
Smith, J. F.[7]	1966	32	F	(R) Molar
Hoke et al.[10]*	1967	64	F	(L) Mandible
Carr[12]*	1968	21	F	( ) Mandible

* Documented cases with metastases.

of reported cases; however, it is interesting to note that in six recently known cases of ameloblastoma with metastases, three show these peculiar granular cells.[10, 12]

Table 1 lists the cases with adequate data which have appeared in English language journals. All have been located in the jaw, mostly around the molar areas, with only one appearing close to the midline. There is no significant difference of incidence between the sexes, and the age ranges from 18 to 79, with an average age of 43.

From the clinical point of view, this case could be mistaken for an odontogenic cyst. The differential diagnosis is most essential for therapy, since the later entity has a better prognosis and usually deserves conservative treatment.

Summary

A case of granular cell ameloblastoma occurring in the symphysis of the mandible of a 13-year-old Negro boy is reported. While it is not a rare variety among the ameloblastomas today, this case is unusual because of its location and age of the patient. The tumor was treated with partial mandibulectomy. Twenty months after treatment, the patient showed no evidence of complication nor recurrence. Previously reported cases are reviewed and compiled.

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William D. Mayer, M.D., director of the Medical Center and dean of the School of Medicine at the University of Missouri-Columbia, was named chairman of the review committee of Regional Medical Programs Service at a recent meeting of the regular group in Washington, D. C.

As chairman he heads the national 16-man committee which reviews proposals for new, expanded activities of the 55 regional medical programs throughout the country. The committee's recommendations are reported to the national RMPS Advisory Council which then determines how and where funds will be spent. Current budget is some $90 million.

Dr. Mayer has served on the national RMP review committee since 1968. While on leave of absence from the University of Missouri in 1966-1967, he was in Washington as associate director of the Division of Regional Medical Programs, established by vote of Congress in 1965.

LINDA J. SALFEN, B.J. *and*
JOHN S. SPRATT, JR., M.D., *Columbia*

Hospital-Based Education at Ellis Fischel State Cancer Hospital and the Cancer Research Center

THIS ARTICLE describes educational programs at Ellis Fischel State Cancer Hospital (EFSCH) and the Cancer Research Center (CRC)—their evolution, their present status and their future objectives, including plans to share ideas with physicians and the staffs of health facilities throughout the state.

The evolution of the various programs has been a progressive learning experience for the staff (1) in educating the various publics served by EFSCH and CRC—health professionals, employees, patients, families and the general public and (2) in relating to and cooperating with various agencies that intertwine in health care educational systems, namely, academic institutions, health professions, government and voluntary organizations.

The complexity of these interrelations makes several seemingly antagonistic characteristics absolutely essential. First, it is necessary to insist with rare compromises upon the highest standards obtainable with the resources available. Second, continual flexibility and open communication is necessary to accommodate established precedence.[1, 2] Third, it must be realized that present employees are the greatest single resource and their development and motivation is essential for success of institutional missions. Four, the education of patients and families is a vital force in improving patient care while reducing the dependency of individuals upon the hospital thus allowing greater economy and efficiency in hospital operation.

The opportunity for personal understanding and achievement is a powerful motivational force that needs to be an intrinsic part of any organization, enhanced through planned educational programs oriented toward institutional objectives. In fact, investment of institutional resources in an educational program is basically equivalent to an investment in human development, which is necessary for insuring knowledgeable participation of all persons involved in or affected by the institutions.[3]

HISTORY OF EDUCATIONAL EFFORTS

In affiliation with the medical schools and teaching hospitals of Missouri, the EFSCH staff and patients have provided clinical training for many physicians since the hospital opened on April 26, 1940 (Fig. 1). In other departments, supervisors occasionally attended special courses outside the hospital. Some employees attended the Mid-West Hospital Association Convention each spring in Kansas City. This meeting obviously boosted employee morale, but the educational benefit was never evaluated and no system existed to assure that educational opportunities conformed to institutional needs.

Industrial experience has established that employees kept motivated and informed through systematic education can do more to maintain the economy and efficiency of an organization than any other single factor.[4] Consequently, the added investment in human development is worth the money. In the case of health care facilities, this educational process also must extend to the consumer public since they can participate in maintenance of their own health, in placement of more logical demands on the health care facility and in their own care when sickness does occur.

In 1958, the State Cancer Commission, a gubernatorially appointed body responsible for professional policy at EFSCH, began to explore methods for more fully utilizing the hospital's potential in service, research and education.

Commission members acted as private citizens in 1962 to create a vehicle for enhancing research. The Cancer Research Center (originally designated the Missouri Medical Research Foundation) was chartered as a nonprofit corporation on April 9, 1962 and received a cancer clinical center grant from the National Cancer Institute

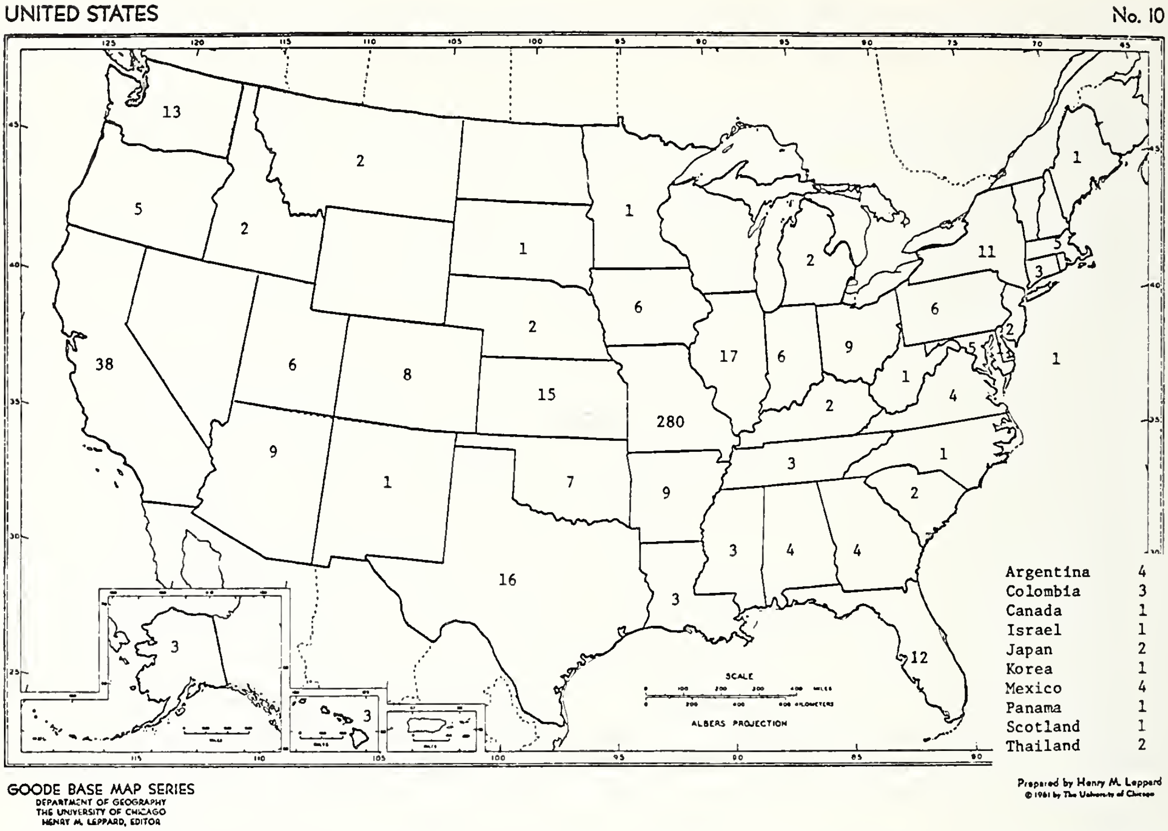
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Fig. 1 Geographic distribution of physicians who have had a portion of their formal medical education at the EFSCH between 1940 and 1970. The map does not show the many hundreds who have had continuing educational opportunities at the hospital. Since 1962, added support has come to these educational programs from the Cancer Research Center.

in 1964. The initial impetus was toward expanded clinical research and physician education with some improvement in nursing education.

The fifth and eighth floors of EFSCH were renovated as laboratories, a statistical unit and a research ward. The first CRC building, which houses a large, well-equipped classroom and other educational facilities, was completed and occupied in 1968. Located on the hospital grounds, this facility was built with approximately $251,000 contributed voluntarily by Missouri citizens and foundations.

While research facilities were being enhanced, many employees continued to experience a period of educational neglect. However, the concepts of participative management and employee education as capital investment in human resources for the institution were permeating the thinking of the professional and administrative staff.[4]

In November, 1968, the administration created an employee development committee charged with the responsibility of planning an educational program that would (1) ultimately involve every EFSCH and CRC employee, (2) improve knowledge of institutional policies and procedures, supervisory skills and job skills and (3) assure every employee the maximum opportunity for vertical and horizontal advancement.

Vertical advancement methods are obvious. Horizontal advances are more difficult to achieve in a hospital. Possibilities exist, however, wherein an employee can shift, for example, from dietary or housekeeping into nursing through a nurse's aide or licensed practical nurses' training program.

Advancement comes through broadened knowledge, greater job satisfaction in one job as opposed to another and greater future opportunities for vertical advancement. Industrial experience has established that human development and job satisfaction at all levels are invaluable assets for any organization.[4]

Shortly before the employee development committee became active, the state increased its support of the educational effort by funding a health educator position. An intelligent, highly motivated young nurse with a B.S. degree was appointed the first health educator on July 1, 1968. Since she was serving as educational coordinator for all employees, she was specifically instructed not to wear a nursing uniform and not to consider herself a nurse. Her orientation had to be toward the educational needs of all the publics served by the hospital and toward all employees.

Given the task of coordinating all the new educational programs, the health educator became the key implementing force of the employee development committee, which also included the EFSCH and CRC personnel directors and a staff member from each organization. The committee reviewed employee personnel records and conducted an attitude and suggestion survey. On the basis of information received, the following specific programs were started: (1) personnel and administrative orientation of all new employees, (2) sessions on management skills for supervisors, (3) general educational programs each week for all employees, (4) special job training for individual categories of employees, (5) educational handouts with each paycheck and (6) distribution of a weekly central schedule containing all training activities.

Employees themselves had initiated two inhouse publications to facilitate communication with their coworkers. *Making Rounds* is a monthly, institution-wide publication that contains descriptions of major events, staff activities and educational comments and aphorisms. *It's What's Happening* serves the same role in greater detail for nurses.

It became increasingly evident that greater emphasis also had to be placed on patient and public education.[5] Patients and their families constitute the largest unused reservoir of low cost medical manpower in a hospital. They can do many things for themselves and make more logical demands on the hospital's services and its staff with appropriate education. The health educator to date has developed the following patient and family oriented brochures in cooperation with the staff:

For the Patient (sent out before the patient's first visit)

As You Enter (distributed to patients on admission)

For the Patient—Your Skin Biopsy (given out after skin biopsies in the outpatient clinic)

What You Should Know About Surgery (given out when the patient is scheduled for surgery)

Copies of these brochures are available to physicians on request.

The second health educator, appointed on June 5, 1969, had a journalism background (B.J., University of Missouri, 1969) with no previous experience in the health field. She has continued and improved programs started by her predecessor and added public educational activities. An eight-page tabloid *(The Mirror)* describing institutional activities is distributed quarterly to Missouri officials, state legislators, EFSCH and CRC alumni, CRC contributors, newspapers throughout Missouri and others on request. Public educational stories about institutional and staff activities in the areas of service, research, teaching and human interest are systematically released to the mass media. They have utilized these materials with a gratifying frequency, and the community interest in EFSCH and CRC has been noticeably enhanced.

A major effort was made through the institutional educational system to involve staff and employees at all levels in better relations with the publics served by EFSCH and CRC. At a regularly scheduled inservice training session for employees, the health educator explained the growing need for good relations with and accommodation of the local, state and national community.[6, 7] The discussion included suggestions on how each individual could participate in the overall planned public education effort as well as in the daily human contact aspect. Professional staff members discussed progress and future plans at a monthly educational committee meeting. In addition, speakers were in-

Educational programs that have evolved and are being planned for the future at Ellis Fischel State Cancer Hospital and the Cancer Research Center may one day effect health facilities throughout the state. The authors believe that an investment in human development is necessary to insure the knowledgeable participation of employees, patients, families and the general public in the health care system. Experience in educational planning will be shared to help other facilities in Missouri to set up similar programs. Mrs. Salfen is Community Relations Director at EFSCH. Dr Spratt is Chief Surgeon at EFSCH, Director of the Cancer Research Center and Professor of Surgery at the University of Missouri School of Medicine.

vited to explain the total field of hospital community relations.

Professional education for physicians also has been improved and expanded. On Sept. 27, 1968, the staff completed the negotiation of academic bylaws with the state of Missouri substituting a chief of staff and a professional administrator for the medical superintendent. The first training grant for a clinical cancer training program, received in 1967 and renewed annually, subsidizes continuing educational programs, distributes the *Cancer Bulletin* to Missouri physicians and pays stipends to medical students for short-term, multidisciplinary oncology fellowships. On July 1, 1970, the CRC received a cancer clinical training grant from the National Cancer Institute that will further increase staff and operational support and provide stipends for post-resident year fellows. These fellows will be encouraged to matriculate in a program directed toward the attainment of a master's degree in public health at the University of Missouri-Columbia.

The diffusion of needed information throughout the personnel and the simultaneous teaching of better supervisory skills has had a beneficial effect on the management and supervisors of both EFSCH and CRC. Decisions that supervisors previously made from case to case on an authoritarian basis are now being formulated in consistent and well stated policies and procedures. These are kept in loose leaf manuals, a form convenient for review and revision when necessary. The format for the policy and procedure manual was adopted from the Memorial-Sloan Kettering Institute through the courtesy of Dr. Frank Horsfall. This has freed supervisory time for further problem solving, staff work, planning of beneficial innovations, education and more patient, family and public contact.

The Future

In the future all existing programs will be kept in operation but must be continually improved and updated. For this purpose, an educational support unit staffed by EFSCH and CRC has been created. It is supervised by the health educator, who is enhancing her educational skills as a part-time master's level graduate student in health education. The unit also includes a photographer, a graphic illustrator and a secretary. The staff education committee reviews the unit's program plans, policies and procedures and discusses suggestions and new ideas that would be beneficial to educational program objectives.

The educational support unit maintains a close liaison with the CRC's office of research, a section that insures staff involvement through necessary intramural review procedures. This office also edits a facilities description brochure, editions of abstracts and a monthly CRC bulletin listing research activities and publications. These administrative units and the EFSCH-CRC library are developing the necessary reference collections of patient, family and employee educational materials to maintain ongoing programs. Information from the American Cancer Society and other cancer institutes has been particularly helpful.

Additional programs will be created in the areas of patient, family and public education. Emphasis will be selected by identifying situations in which information is repetitively transmitted and where errors of informational omission could create problems or impose inefficiencies and higher costs.

Health education graduate students from the University of Missouri will become involved increasingly in this effort as part of their field training experience and as research assistants. This cooperative program will add a new and unique dimension to the graduate program and a great deal of potential benefit to the EFSCH-CRC, its clientele and its employees.

The first graduate student worked with the educational support unit during June and July, 1970. Students such as these can function as observers relatively new to the hospital scene. By becoming involved in the working environment under the guidance of the educational support unit, they can identify areas of specific need and work with the medical staff, supervisors and employees to develop appropriate educational materials.[8]

A list of general suggestions for case studies and curricular development is kept current and will serve as a basis for the field experience and staff work. This list will grow and change with the expressed needs of the professional staff, the publics served and interests of the graduate students.

Patient education will be an area of prime interest. Staff and students will investigate the physical, emotional and social needs of patients and their families under conditions of treatment, rehabilitation and restoration. From this, they will identify the information and behavior necessary to benefit from the clinic, hospital and posthospital experience.

Working from this basic knowledge, the students will design and test educational materials to produce the desired behavioral changes and to provide informational requirements for various categories of patients and their families. The development of the educational materials is only a preliminary step. Since all material is intended to produce a definite behavioral or motivational change, it must be tested to see if it is indeed producing this desired change in the persons toward whom it is directed. When material fails the test, it must be redesigned and retested. Demonstrations of the programs will be evaluated for the possibility of making new techniques standard operating procedures.

As a guide, the students will use the diabetes patient education program set up by Mrs. Marian Ulrich, R.N., M.S.P.H., at C. T. Miller Hospital, St. Paul, Minn.[9] The purpose of her program is to facilitate the teaching of diabetics into an understanding participation in self care. It begins with the physician's consent for the patient to participate in the program (on an actual order form inserted in the chart). The education process starts on the day the order is written. The patient completes a questionnaire, is interviewed and receives a pamphlet describing the program. Evaluations of each patient's needs are made in Patient Education Planning (PEP) conferences. The program is designed to be individualized; that is, various materials may be included depending on the educational diagnosis for each patient.

Similar methods will be used in the areas of employee education (to improve job effectiveness, enhance job satisfaction and accelerate personnel advancement) and public education (to fill informational needs with respect to the EFSCH-CRC services and functions, as well as general cancer education).

The ultimate objective is to see that appropriate information becomes available to patients, families, staff and the public at logical points in time to permit its effective and spontaneous use with a minimum degree of direct supervision. Utilization of all information is directed finally toward maximizing the quality of patient care with the greatest degree of economy and efficiency while simultaneously preserving the dignity, motivation and satisfaction of all participants. Physicians and other health professionals across the state can assist in this effort by calling to our attention areas of specific educational needs identified in cancer patients.

After approximately three years of intramural experience, we would like to expand our program to include invitational workshops. By showing physicians and the staffs of other health facilities what can be done in the areas of employee, patient, family and public education, we hope to share our experience with them in setting up similar programs in their own institutions, clinics and offices.

Any health care facility, but hospitals, in particular, can and should become and remain a focus for the scientific, systematic development of all the people it employs and with whom it interacts. Intense, ongoing educational programs are particularly necessary in public hospitals where important human resources can be developed to insure the operation of low-cost, high-quality institutions.

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The American Heart Association's booklet for physician distribution to patients with varicose veins has been updated and completely redesigned. Entitled "Varicose Veins," the 12-page illustrated publication explains the nature and principal methods of treating the condition. Copies may be obtained from the Missouri Heart Association, P. O. Box Q, Columbia, Mo. 65201 or the AHA Central Office, 44 E. 23rd St., New York, N. Y. 10010.

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Detection for Lung Cancer: Present Methods and Their Worths

The working concept of cancer detection is best stated as follows: "While it is important to have strategically located cancer detection centers for the development and learning process, the bulk of this work must be done in the private office";[1] "The backbone of American medicine is the practitioner working in his own office with his own patients."[2]

It is estimated that about 70% of all cancers lend themselves to detection through "careful listening, looking and feeling" by the physician. If obtaining a cervical smear is added to this routine medical examination, the yield will be 80% to 85%. Another 5% can be detected by adding chest x-ray, hemoglobin test, blood smears, microscopy of urine and a test for occult blood in the stool. Sigmoidoscopy accounts for the final 10% to 15%.[3]

Statistically, the yield of positive malignant cases detected in an asymptomatic population is relatively low. Over a three-year period, after examining more than 25,000 women and 13,000 men predominately between 35 and 60 years of age, the accumulated number of cancer cases detected was just over 1% (10.1 cases per 1,000) for women and under 1% (eight cases per 1,000) for men.[1] This result was particularly distressing since a truly asymptomatic population is hard to find; about 40% of so-called "well" populations have varying degress of complaints.[4]

Since 1930, mortality from cancer of the lung has increased in both sexes. Today, lung cancer has the highest mortality rate of any single cancer site in males, and in females it is the fifth highest and rising rapidly.[5] Although it is well known that the key to effective control of lung cancer should be prevention of the disease, the methods available for early detection need to be emphasized and the results evaluated. Presently, there is no single technique or combination of techniques available to diagnose lung cancer with results comparable to those for early detection of cervical, oral, colo-rectal or breast cancer. In some cases *in situ* lesions have been recognized cytologically, but the frequency is low (four of 784 cases found in 2,931 patients screened).[6] Furthermore, lung cancer *in situ* cannot be diagnosed with x-ray films.

This paper attempts to review the methods useful for early diagnosis of lung cancer and summarize their validity, sensitivity and accuracy. Since the present methods have achieved only a limited improvement in lung cancer control, some newer techniques, research tools and preliminary results are mentioned.

Clinical History, Selective Factors

Abundant epidemiologic evidence indicates that certain persons are more likely to develop lung cancer. Epidermoid cancer, which accounts for nearly nine out of every ten cases of lung cancer, is almost exclusively a disease of cigarette smokers. It is estimated that one heavy-smoker in eight will develop lung cancer compared to one person in 300 in the nonsmoking population. Persons engaged in occupations which expose them to specific inhalants such as chromates, nickel, arsenic, chromium, radioactive ore, asbestos and, perhaps, gasoline refinery workers run a significantly higher risk of developing lung cancer. The urban nonsmoker is slightly more exposed than the nonsmoker in the country to developing cancer due to air pollution and substances in smog.[7] Lung cancer incidence is greatest in the lowest social economic groups, not only in the United States, but also in England, Wales and Denmark.[8] The preponderance of lung cancer in males (9:1) could disappear since the incidence of lung cancer among women will increase sharply in future years if present smoking trends continue.

There is no characteristic syndrome of lung cancer: symptomatology depends on the site of origin, relationship to nerves or vital structures, rapidity of growth and so forth. Common clinical manifestations of chronic irritation to the bronchial epithelium are "smoker's cough," shortness of breath and reduction of breathing capacity. The five major symptoms associated with lung cancer are a worsening cough, hemoptysis, weight loss of more than ten pounds, unilateral wheeze and a cough enduring for months or years.[9] Physical examination is notably unrewarding in the early cases; thus reliance must be placed exclusively on x-ray and laboratory tests.

In the Philadelphia Pulmonary Neoplasm Research Project, half of the survey-detected lung cases failed to report to a physician despite the presence of symptoms. For those patients who did seek medical advice, it was unfortunate that many physicians failed to consider the possibility of malignancy. Many patients with advance malignancies have histories of one or more episodes of "viral pneumonia." It is a sound plan to x-ray every patient who has had exacerbation of previous symptoms or the addition of new respiratory symptoms.

The role of the general practitioner is most important since it is he who is first consulted by the average person with early symptoms. Indeed, many anxious patients have used a minor complaint as a pretext for seeing the doctor, hoping the doctor would discover the real source of worry. A chest roentgenogram should be obtained yearly on any patient who smokes up to a pack of cigarettes a day. If the patient smokes more than two packs per day, the chest roentgenogram should be performed at intervals of three or four months. This regimen will provide what little opportunity exists for early detection of lung cancer.[10]

X-ray Screening Results

Radiographic detecting of lung cancer in an asymptomatic stage is most effective in peripheral lesions where the cytologic method produces a lower yield. X-raying a population and reading films is faster and cheaper than collecting sputum and preparing and reading slides by the conventional manner.[11]

Standard chest x-rays taken of apparently well, middle-aged males (ages 30 to 72, executive employees; total 269 subjects followed for five years) as part of their routine annual health examinations showed that the unexpected rate of individuals with abnormal findings of all types was 2.8%.[12] In pulmonary photofluorography surveys, about 8% of the shadows regarded as "tumor suspect" in films of asymptomatic adults proved to be bronchogenic carcinoma, and about 24% of the "solitary circumscribed shadows" in such persons proved to be carcinoma.[13] According to a community-wide mass, chest-roentgenographic survey in which 65% of the adult population had chest films and patients with abnormal films had follow-up study after five years, only 4.2% of the so-called coin-type lesions found incidentally in males and the 1.4% in females were proved to be malignant.[14] Lesions were more likely to be malignant with increase of age and nodular size.

Since 1930, mortality from cancer of the lung has increased in both sexes. Dr. Lee reviews the methods useful for early diagnosis of lung cancer and summarizes their validity, sensitivity and accuracy. She also discusses newer techniques, research tools and preliminary results. Dr. Lee is a Surgeon at Ellis Fischel State Cancer Hospital, Assistant Scientist at the Cancer Research Center and Assistant Professor at the University of Missouri School of Medicine. This research was supported by USPHS Service Grant CA-08023.

Results from the Strang Cancer Prevention Clinic, where more than 25,269 women and 13,422 men were examined from 1954-1956, showed that routine physical examination and chest x-ray discovered only two cases of lung cancer in females (eight per 100,000) and four cases in males (three per 10,000).[1] Garland estimated photofluorographic screening procedures applied to the general population could result in the detection of about ten cases of bronchogenic carcinoma per 100,000 persons examined.[13] This estimate was confirmed by one of the largest single series conducted in Australia where 906 lung cancers were detected among 7,900,000 people screened—a rate of 1.15 per 10,000 population.[15] If the screening procedures were restricted to males over 45 years of age and conducted every six months, the yield could reach about 50 cases per 100,000 (five per 10,000). In contrast, for symptomatic patients seen and referred by doctors, there is a high yield of 267 cases per 10,000 patients.[16]

Gilbertson[17] reported the results of yearly chest x-rays on 12,174 asymptomatic adults (approximately half were males) who were older than 45 years. A rate of detection of one primary lung cancer per 3,044 initial examinations and one per 6,934 reexaminations means a cost equivalent of $26,890 and $34,670 respectively for each cancer found if the cost per examination was only \$5. These figures come very close to the values of possible lifetime earnings of persons aged 50 to 59—\$54,487 for males and \$40,919 for females.[18] Therefore, he concluded that in asymptomatic individuals, even 45 years of age or older, chest x-rays and photofluorograms are not a satisfactory method for detecting early lung cancer.

A recent cost analysis reported from an automated multiphasic screening program (Kaiser Permanente Medical Groups), which has a patient load of about 500 per week, showed the unit cost per patient screened was \$21.32 including central staff, data processing and all direct and indirect charges.[19] The unit cost for chest roentgenography, a single posteroanterior view with 70 mm film interpreted by a radiologist, was \$0.46 not including an overhead administrative cost of \$9.93. In 7.4% of all examinees, clinically important abnormalities including suspicious density, lung fibrosis, hyperlucency, mediastinal and hilar abnormality, hiatus hernia, aortic cardiac enlargement, other cardiovascular abnormality or bone lesion were reported. For adults more than 60 years old, there is a tenfold increase in the frequency of abnormalities reported, compared to the frequency reported for those under the age of 40.[20] If five out of 10,000 patients screened did have lung cancer (a high pick-up rate as discussed before), the cost per positive case detected by this automated multiphasic screening program would still amount to about \$20,000, not including subsequent professional and hospital costs for the confirmation of diagnosis.

VARIABILITY OF CHEST X-RAY READING

Aside from cost-benefit limitations, the difficulty with early detection of lung cancer by x-ray is due, in part, to the technical problems of film reading. Spratt *et al*[21] have shown that the radiologist could locate abnormal radiopacities of 6 mm in diameter only when the objects were located in intercostal spaces contrasted against aerated lung. A 6 mm tumor contains 1.13 x 10^8 cells and already has had 26.7 binary divisions from a single cell.

Weiss *et al*[22] reported that the diameters of lung cancers which could be seen in the first x-ray films varied from 0.6 cm to 2.5 cm. In 12 out of 18 cases, these were retrospective observations because the tumor had not been recognized until it was larger.

Veeze[23] reported a retrospective investigation of 580 patients with lung cancer whose previous films were available for review. He found that screening with 45 mm miniature films for tuberculosis will reveal no more than 75% of the "prospectively" positive cancer cases. Among those patients with lung cancer, approximately 32% were detected by x-ray. In order to improve the sensitiveness of lung cancer by x-ray detection, the films should be read at a very quiet rate by a specially trained observer, who at the slightest suspicion compares the film with a previous one. However, when applied to a population of men 40 years of age and older, this method would probably yield a 10% false-positive reading.

Observer error in chest radiography is great enough to create special problems in diagnosis and treatment. Yerushalmy[24] reported that in interpreting a set of photofluorograms for the presence or absence of a lesion, a competent and experienced physician misses in a single reading as many as 32.2% of the positive films and provides a false-positive diagnosis on 1.7% of the negative films. In judging a pair of serial films for evidence of progression or regression, two competent and experienced physicians are likely to disagree with each other in nearly one third of the cases, and a single reader is likely to disagree with himself in about one fifth of the pairs.

Lilienfeld and Kordan[25] reported the variability in the interpretation of standard chest x-rays in the detection of lung cancer by radiologists. With respect to inter-individual variability, the positive readings of one radiologist will be called positive by another radiologist in about 50% to 60% of the cases and negative readings will be called negative in about 90% to 95% of the cases. Similar degrees of agreement were found when a radiologist read a series of x-rays twice.

DOES EARLY X-RAY DETECTION INFLUENCE THE NATURAL HISTORY OF LUNG CANCER?

Davies[11] reviewed the effectiveness of radiographic, cytologic and other detection methods for the early diagnosis of lung cancer in 1965. He found that resectability has repeatedly been shown to be approximately twice as great among those cases discovered by routine x-ray surveys as among those found after the appearance of symptoms. Overholt *et al*[26] showed that the three-year survival rate of resected lung cancer of survey-detected lesions was better than that of symptomatic cases (30% vs 12%). However, other reports disagree. It is felt that the fate of the patient with bronchial cancer probably depends more on the inherent malignancy of the tumor and its location than on the efficacy of diagnostic efforts.[27]

Statistical proof of the effectiveness of surveys for lung cancer would require the comparison of two similar populations, one of which was examined by x-ray at regular intervals and the other not. Brett[16] reported a test group of 29,733 male factory workers who were 40 years of age and older and who had an x-ray at six-monthly intervals for a period of three years, and a control group of 25,311 men who received an x-ray examination only at the beginning and the end of the three year period. Both groups were similar in health, address, occupation, age and smoking habits. At the end of the three years, both groups were compared with regard to the observed morbidity and mortality from lung cancer. No case was followed up beyond the three year period. The results showed that (1) with a six-monthly survey, the subsequent detection rate dropped to about one half of that in the initial survey; (2) frequent x-ray examinations did not substantially increase the percentage of resections in the cases detected; (3) more cases were diagnosed and more could be treated by resection in the frequently examined population than in the control population; and (4) no reduction of mortality from lung cancer was observed as a result of six-monthly surveys.

The last point is certainly disheartening. However, the experience of the Philadelphia Pulmonary Neoplasm Research Project found a similar paradox. This study conducted semi-annual chest x-ray examinations with 70 mm film of 6,137 male volunteers 45 years of age and older and each man was observed for at least ten years. They found that among the patients who had cancer discovered upon entry, 12% survived five years from the date of the first abnormal film, whereas, the five-year survival rate was only 7% among the patients who had cancer discovered during the subsequent years.[28]

One explanation could be that cancer cases found at a particular point in time (the prevalence rate) are weighted with more slowly growing tumors. There is a good correlation between tumor growth rate and survival of the host.[29] From the same research project, they found another interesting point regarding the time interval necessary to conduct repeated screening examinations. Since abnormal opacities ordinarily are not recognized roentgenographically when the diameter is less than 1 cm, in order to detect the lesion as cancer when its diameter is 1 cm and increases to 1.26 cm (only one volume doubling), the x-ray interval must not exceed the doubling time. Since half of the doubling times recorded for lung cancer reported in the literature are less than three months and three fourths are less than six months, this means that if lung cancer is to be detected soon after it reaches roentgenographic visibility, the interval between serial chest films must be less than six months in the majority of cases.[22] Whether or not such a program would improve the cure rate remains to be determined.

Another explanation for the reported similarity of mortality between the test group and control group could be the fact that the frequent screening in the test population may well have discovered cases of lung cancer that would otherwise have been misdiagnosed. In other words, in the control population the death rate from lung cancer may have been underestimated. This was documented by Haupt and Zomisch[30] who found that of 1,427 lung cancer cases which had come to autopsy, the diagnosis was not clinically suspected in 31% of the cases. A similar paradox was found by the mass screening program for cervical cancer in British Columbia, Canada. Since the initiation of the Pap smear program in 1951, diagnoses related to the female genital system recorded on the death certification have become more accurate: the proportion of deaths from an unspecified site decreased and deaths in the cervix category rose temporarily despite a proportional increase of patients with earlier diseases discovered secondary to the organized mass screening program.[31]

DIAGNOSTIC ACCURACY OF CYTOLOGICAL AND HISTOLOGICAL EXAMINATIONS

Cytological examination of sputum smears is accepted as a useful diagnostic tool in cancer of the lung since Papanicolaou and Traut published their monograph in 1943.[32] However, the discovery of cancer tissues and cells in sputum was first reported more than 100 years ago.[33]

Among patients with known carcinoma of the bronchus, sputum cytology will be positive in two thirds of the patients and suspicious in another 10% of the cases.[34] The chance of finding cancer cells in the first sample of sputum is about 40%. This figure rose to 50% after examinations of two samples, 60% after examination of three and 70% after four examinations.[35] Cardozo *et al*[36] reported that if the screening is done by two technicians simultaneously, the result is about 16% better on the first sample. Farber *et* *al*[37] also found that when five or more sputum specimens were taken, the accuracy rose to 90%.

Cytological results vary according to histological types. Among epidermoid and oat-cell carcinoma the yield is well over 60%, whereas adenocarcinoma and unclassified bronchogenic carcinoma only yield about 50% of the diagnoses.[34] The size of resectable tumors had relatively little influence on the cytological diagnosis.

Bronchogenic carcinoma often can be detected by cytological study of the sputum before the tumor can be diagnosed either by special x-ray studies or by bronchoscopic examinations.[34, 37–39] Sputum cytology also can be helpful in the diagnosis of secondary neoplasm in the lung. Rosenberg *et al*[40] found cancer cells in 38% of 50 patients with metastatic lung cancer; Parker and Reid[41] found cells in 73% of 30 such patients.

The incidence of false-positive diagnoses of sputum cytology is very low; in the series reported, it was less than 3%.[35] In a retrospective evaluation of diagnostic aids in 113 patients with lung cancer confirmed by thoractomy, it was found that diagnosis made from five sputum cytology specimens is just as accurate as routine posteroanterior and lateral chest x-rays (78%).[42]

The chances of detecting cancer by bronchoscopic study alone are less than 40%.[6] Among the patients who had a negative bronchoscopic examination, about 70% of the sputum samples still appeared positive.[35] It must be emphasized that while in most cases numerous samples of sputum can be obtained, bronchial aspirates are usually performed only once. It is said that the combined use of sputum and bronchial aspirates give only 4% additional positive diagnoses over sputum cytology alone.[34]

Biopsy of a scalene node yields a positive result in about 15% of the patients with lung cancer.[43] In patients with potentially curable lung cancer and without palpable nodes, scalene node biopsy was not indicated.[44] However, recent reports showed that even in cases with nonpalpable scalene nodes, about 11% (of 209 patients)[45] to 21% (of 112 patients)[46] of the lung cancer cases have positive metastases. Exploratory thoracotomy is an acceptable diagnostic procedure. The mortality rate is well under 1% in patients who are reasonably good surgical risks, and the findings will be positive in 10% to 30% of the patients with indeterminate or so-called coin lesions.[43]

CYTOLOGICAL SCREENING RESULTS

Currently, very few patients other than those presenting with an abnormality visible on a radiograph have been subjected to intensive cytologic examination of the sputum. It is felt that the refinements of techniques and skills of available workers are insufficient to justify mass screening of sputa of the general population.[47] So far, all of the research screening cytologic programs are conducted primarily among male smokers.

Valaitis[48] conducted cytologic screening among a group of 3,381 smokers and reported that 3.7% had atypical cytology and 0.3% had suspicious and positive readings. Ehrlich and Finkel[49] have reported their preliminary results with an automated pulmonary cytologic diagnostic system (Cytec). In an industrial screening program of 2,645 cases (primarily smokers), they found 2.4% had atypical cytology and 0.2% had suspicious or positive cytology. Ninety-two percent of 192 patients with positive cytology and 82% of 195 patients with suspicious cytology were later confirmed by detailed medical follow-up.[50]

A conventional sputum cytology screening program was carried out in the outpatient clinics at the Toronto General Hospital from 1963 to 1966.[39] The study was restricted to cigarette smokers over 40 years of age without specific chest complaints. There were 1,586 patients examined and an average of 1.4 samples per patient were obtained. The results showed that about one third of the patients demonstrated benign but atypical alterations and 10% showed significant premalignant abnormality. In 11 patients (a rate of 7 per 1,000), malignant cells were identified.

A cytological survey program conducted on 3,075 smokers over age 30 and 1,003 nonsmokers in a middle-class American community showed that abnormal cytology (atypical, suspicious or positive) in nonsmokers was 0.9% and in the smokers, it was 4.8% (4.4% with atypical cells, 0.2% with suspicious cells and 0.1% with positive cells). Two of the three smokers with positive sputum cytology had bronchogenic squamous cell carcinoma *in situ* found in the surgical specimen.[51]

Since cytologic and radiographic methods serve complementary functions in detecting early lung cancer, the logical step is to combine them. Sakesena *et al*[52] have used such a program in high risk cases including heavy smokers, those who had occupational exposure and those who had successful pulmonary resections for tumor. In a group of 1,200 patients followed by sputum cytology every three months and chest x-ray every six months, eight cases of lung cancer were diagnosed by sputum cytology alone in the face of normal chest x-rays, and six of the patients underwent successful pulmonary resections.

Newer Method of Detection

Small tumors which are hidden in the hilar shadow may not cause any abnormality in routine chest x-ray. However, a decrease of local perfusion may occur, and when the difference of activity is 10% to 15% or more, the abnormality can be detected by scintigraphic scanning after injection of isotopically labelled macro-aggregated human serum albumin. Among a series of 500 patients with various pulmonary diseases, 120 centrally located lesions were diagnosed by scanning, whereas radiological findings were abnormal in only 105 patients (88%).[53]

Selective uptake of radioactive phosphorus (P^{32}) by malignant tumors has been well documented since the 1940's. It is possible to measure the radioactivity over the suspicious area with a Geiger counter and compare the level of activity with counts obtained over normal areas.[54] Ackerman *et al*[55] utilized this phenomenon in the *in vivo* diagnostic radioautography studies. However, cancers of the lung are located in a rather inaccessible area.

Fries and Richter[56] found that in a high proportion of patients with lung tumor, there were abnormal patterns of high and low skin resistance due to lesions of the sympathetic ganglia in the cervical and upper thoracic regions, either from pressure or from invasion. Lipson *et al*[57, 58] have injected intravenously hematoporphyrin derivates which are picked up by the neoplastic tissues and appear as red fluorescence. They have used this method during bronchoscopy and 32 of 34 patients with malignancy had positive fluorescence. The specificity and sensitivity of total body thermography for the detection of malignant disease awaits further study. However, a preliminary report of more than 500 patients tested showed that there is a 77% accuracy rate, and hilar nodes in lung cancers appear as abnormal shadows.[59]

There have been cases reported which had increased levels of plasma gonadotropin when roentgenograms of the chest, bronchoscopic examination and scalene lymph node gave no evidence of tumor. Lung cancer was diagnosed more than one year later.[60] This suggests that radioimmunoassay demonstration of increased serum polypeptide hormone concentrations could prove useful in the detection of ectopic hormone synthesis by neoplasms whose size or location prevents detection by conventional clinical or radiologic methods.

Summary

Cancer of the lung is presently a public health problem. More than one third of the cases involve young men in their 40's when they are still active, useful citizens. The only positive approach appears to be early recognition and successful treatment, since ultimate conquest and prevention must wait until man changes his habits and way of life.

Presently, available methods for early detection of lung cancer include radiography and cytology. Clinical experiences reported in the literature and factors influencing the specificity, sensitivity and applicability of mass screening are reviewed. Some newer research tools and techniques which might be useful for early detection of lung cancer also are reviewed.

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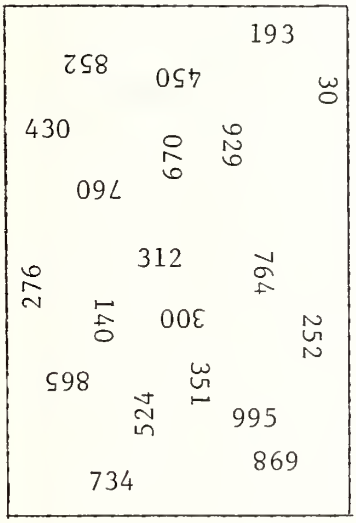
TO ASSIST MEDICAL SOCIETIES in their membership services education programs, the AMA has developed an informational aid that is now available. It is a 20-minute sound-slide presentation, "AMA—Symbol of the Medical Profession," that describes and graphically illustrates the benefits of AMA membership. Highlighted are the extensive AMA services performed for physicians and the numerous health education programs and services carried out for the public on behalf of the profession. The film may be obtained through the AMA Field Office, 7751 Carondelet Ave., Suite 203, Clayton, Mo. 63105.

FRANCIS R. WATSON, Ph.D. *and*
ROBERT L. GLASS, M.D., *Columbia*

CAMEO—Cancer Management and Education Optimization



1.__________

193	252
430	929
312	30
995	670
734	140
698	764
865	351
300	276
760	524
450	852

2.__________

30	524
140	670
193	698
252	734
276	760
300	764
312	852
351	865
430	929
450	995

3.__________

Consider the set of numbers in each of the above three rectangles. From an examination, can you state what the average value will be for each set? Fill in the blank line below each rectangle. The answers to the above questions may be found in the last paragraph of this article. Compare these answers with those you have placed in the blank spaces.

You may have estimated the average of each set of numbers in one of two ways. You may have merely looked at the numbers without doing any computations in your head and attempted only to get an intuitive feeling for the overall average. On the other hand, you may have actually added the numbers and, thereby, computed an average. If you used the first method of making an intuitive guess without actually making an attempt to add the numbers, you probably will find that your answer for the third rectangle is more accurate than your answer for the second rectangle and that your answer for the first rectangle is the one in greatest error. On the other hand, if you used the method of actually adding these numbers and, thereby, coming to an average estimate, you are most likely to find that the greatest amount of time was taken by the numbers in rectangle #1 and the least amount of time was taken by the numbers in rectangle #3. Indeed, the average in rectangle #3 may be quickly and reasonably accurately estimated by the middle number in the array.

What has the above problem to do with medicine?

Information generally can best be gained from an organized set of data; the greater the organization, the more quickly a given amount of information may be obtained from it. As a corollary to this, one may say that more precise information may be obtained from highly organized material as opposed to the information gained from a less well-organized set of data. The first rectangle contains an example of a disorganized set of numbers, whereas the third rectangle contains a highly structured set of numbers.

CAMEO is a system developed to organize medical facts and define the logic involved in treating cancer of the breast and cancer of the colon for computer analysis. It provides a useful tool for the physician in solving complex problems rapidly and in maintaining a universally consistent approach to the management of breast and colon cancers. Dr. Watson is Chairman, Department of Biomathematics, and Project Director for CAMEO, Cancer Research Center. Dr. Glass is Assistant Scientist, Department of Surgery, and Medical Director for CAMEO at the Cancer Research Center. This work is supported by Missouri Regional Medical Program Grant RM00009-04.

If you have noticed that you are in agreement with our conclusion that the more organized set of data yields either a more accurate result or a more efficient method of computation, then you have seen the power of organization as it affects you in a very simple problem. Compound this problem now manyfold and consider how much time may be saved in organizing more complex material than the above or how much more accurately solutions may be found to the same problem through organization.

To a certain extent, much of medical knowledge is presently in a form analogous to the numbers in the first rectangle at the beginning of this article. Under this condition, the extant knowledge is difficult to employ and time-consuming to learn. CAMEO is focusing its efforts on a small amount of the vast medical knowledge to transform it into an organized, coherent whole, as are the numbers in rectangle three.

The Medical Logic Problem

> "Reasoning may be called either immediate or habitual: the immediate is when we go through the whole process before we can draw the conclusions: the habitual is when we are so well acquainted with the subject as to draw conclusions at once, as it were jumping over the investigation; but this often leads us into error by taking premises for granted."—John Hunter

Complex medical logic involves the integration of generalities with details. Because of this, assurance of a "best" decision in a particular case is uncertain. A physician may feel he can make the "best" decision by going over the facts in great detail, but if the physician spends sufficient time to analyze in detail all patients with complex problems, he could manage only one or two patients a day. In cancer management, decisions are based on the patient's general condition, the natural course of the cancer and the risks and benefits of various treatments. Innumerable variables must be considered for each patient. Proper integration of these variable facts gives a "best" decision for a patient's care. With present demands on the physician's time, it is obvious that he must employ the type of reasoning John Hunter described as "habitual" in spite of its inaccuracies.

Medicine an Art Rather Than a Science

In medicine, few generalities apply to all cases. There are no specific models to test a line of reasoning such as the physicist or chemist uses, supposedly because of the greater complexity of the biologic and social problems involved with patient care as opposed to the problems in "the hard sciences." However, another reason for the relative lack of logic in medicine as opposed to the physical sciences is the atmosphere in which the practitioners of these two disciplines work. Many writings in physics or chemistry are tremendously complex with a wealth of facts and details such as to overwhelm the mind; the same is true of the medical literature. If we discount the complexities in the subject matter, which in many cases are equally great in either field, we should look into the atmosphere in which the physician works, as opposed to the physical scientist. The physician works in an atmosphere of urgency with continual harassment, with emergency calls and consultations interrupting orderly reasoning; the scientist, who may spend many hours a day on a given problem, works in a well-organized and relaxed atmosphere, generally without the harassing interruptions that are a routine part of a physician's daily existence.

The Logic Involved in the Treatment of Breast Cancer

Listed below is a small and incomplete list of variables which have a bearing on the course of adenocarcinoma of the female breast:

age of patient
location of tumor within breast
size of lesion
palpable axillary nodes
distant metastases
skin edema
degree of fixation

general medical status of patient
histologic type of tumor

Even this list of nine gross variables, when considered in all possible combinations, would give 512 specific types of cases to be subjected to treatment. It is no wonder that knowledgeable physicians vary in their recommendations for treatment from simple excision (Crile) to extended radical mastectomy (Urban). For the physician, treating breast cancer to integrate all these facts within a reasonable length of time would be difficult. Compare this with the architect who may spend a full year designing a new building. During the year in which the architect designs one building, the busy surgeon may manage 20 patients with carcinoma of the breast in addition to treating hundreds of other patients with other problems which may be equally complex.

By current techniques, detailed analysis of each patient with breast cancer is impossible. The contributions which the computer has made to the "hard sciences" indicate that similar contributions can be made to medicine. The calculations of the orbits of the planets which took Johann Kepler 30 years to complete can now be done in 15 seconds on a computer. Few medical problems are more complex than those solved by Kepler. Breast cancer is the most common, fatal malignancy of human females and many individual facets of the disease have been analyzed. When we properly tabulate these isolated facts for computer analysis, a universally consistent approach to the management of this disease will exist.

Today, medicine finds itself with a wealth of facts and many standard decisions but few explicit methods for making decisions from the facts. When our "wealth of medical facts" is organized for computer analysis, the computer will benefit the physician and the patient by rapidly integrating many variables. This use of the computer has already been applied effectively to the hemodynamic alterations in the patient in shock. Before the computer can be useful in any problem, however, the facts and the logic of the problem must be stated explicitly. CAMEO is organizing the facts and defining the logic about the treatment of cancer of the breast and colon so they may be analyzed by the computer. The simple rules of addition and multiplication took centuries to evolve. Similarly, the transition from implicit (intuitive) medical knowledge to explicit medical knowledge will take time. Work is being done on the logic of the problem, new methods of measurement, more precise definitions and so forth.

CAMEO will concentrate on two common problems, i.e., cancer of the female breast and cancer of the colon. What information does one need and what logic shall one employ to arrive at the best choice of treatment for a patient with either of these diseases? Thousands of bits of pertinent information about the specific aspects of each of these common diseases are spread through the medical literature. Each article considers certain limited aspects of the disease in great detail. There is, however, not a single source which tabulates all of these details or makes an effort to organize them coherently. CAMEO is collecting all this information, putting it into explicit form and then analyzing it with accuracy and detail never before attempted. This will give the practicing physician a useful tool to solve complex problems rapidly.

The answers to the questions on the first page are #1, 10,525, #2, 10,525 and #3, 10,525.

The National Clearinghouse for Drug Abuse Information is providing a 24-hour telephone service to answer requests for information about drug abuse. The newly created Clearinghouse is a branch of the National Institute of Mental Health, Department of Health, Education and Welfare. It serves as the Federal focal point for drug abuse information.

The telephone number to call for drug abuse information around the clock is 301-496-7171.

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American physicians are urgently needed, especially general practitioners, general surgeons, internists, ophthalmologists, orthopedic surgeons, pediatricians, and preventive medicine specialists.

For further information please write to:

Program Director
Volunteer Physicians for Viet Nam
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

President's Message

Missouri citizens who voted on Tuesday, November 3 approved a change in our state's Constitution to provide for annual sessions of the Missouri General Assembly.

The Missouri Legislature has been holding sessions each year in recent times, but not true annual sessions as we will have in the future.

Under the present system, the General Assembly has met for six-month regular sessions in the odd-numbered years and then has been called into special session by the Governor in even-numbered years for the purpose of budgeting state funds and acting on other matters as recommended by the Governor.

In the future, however, the General Assembly will meet for approximately five and one-half months in odd-numbered years and for about four months in even-numbered years. And there is no limit on the type of legislation which can be introduced in either session. I understand that bills can be introduced during the month of December, even before the sessions officially open.

Also, there is a possibility that bills which are introduced during the sessions in the odd-numbered years and which are not passed or killed that year can be considered during the session the next year. I understand that this provision of the Constitutional Amendment is still open to interpretation.

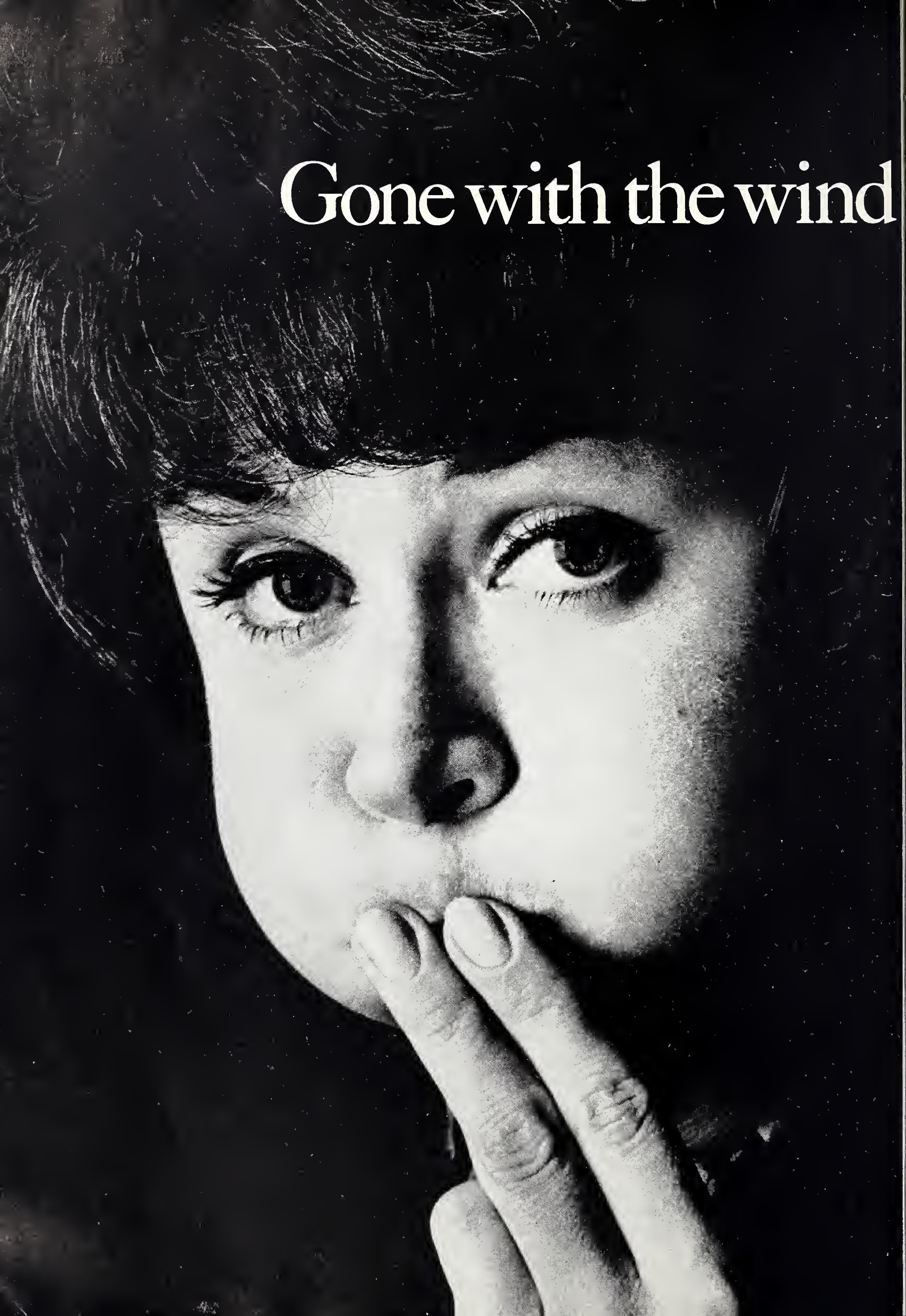
Joseph L. Fisher, M.D.

I have had the Missouri State Medical Association staff check with Association staffs in several states which have recently changed from biannual sessions to annual sessions. All of these replies have cited the tremendous increase in health-oriented legislation which has come with the change to annual sessions. This has, of course, meant new and additional problems for the associations in those states.

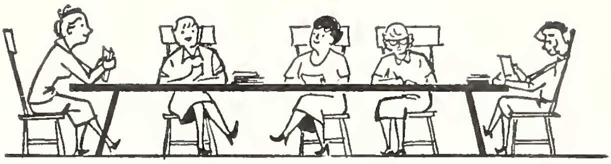
I have always urged physicians to be interested in the activities of the General Assembly and to let their representatives and senators know their opinions on all bills which affect the health of Missourians, directly or indirectly.

With the advent of annual sessions, it is increasingly important for Missouri physicians to be informed concerning legislation and to make their views known to those who represent them in Jefferson City.

Annual sessions also will place a new burden on our office staff. They can only do their job well with the support of interested Missouri physicians.


Gone with the wind

Woman's Auxiliary



The Holiday season . . . the season for giving . . . is now upon us!

Have you considered making medicine the prime recipient of your giving this year? Even though you already assess yourselves to support the Missouri State Medical Foundation (and I know of no other profession which does assess itself to train young people to follow in its footsteps), additional funds are needed for this important program.

The Auxiliary is making its annual contribution to your student loan fund at this time with the hope that you, too, will catch the spirit and send in your extra contributions now.

Make your contributions to the Foundation in the form of gifts for friends in medicine. Your wife will love you for lightening her shopping burden! (Have YOU ever tried to buy a gift for a doctor who seems to have everything?) Make your contributions in honor of friends outside of medicine, too, as visible proof of how hard the physicians of Missouri are trying to help provide new physicians for our state.

Do you send Christmas cards? The Auxiliary also works to support AMA-ERF through the sales of cards, *Today's Health Guide*, fruitcakes, jewelry, watches, stuffed animals, etc. We earmark the proceeds from these sales for Missouri's medical schools. However, you may indicate the school of your choice. Last year, the three medical schools in Missouri received more than $40,000 from AMA-ERF in unrestricted funds to be used at the Deans' discretion.

Mrs. William M. Walker
President

Again, giving to the MSMF will save our wife shopping time and frayed nerves, it will help keep our medical school doors open for that deserving student to whom we've loaned money and it will make for a most satisfying and pleasant holiday season.

Happy giving—to medicine, of course!

EDITORIAL

GIFTS THAT KEEP GIVING

In these days of inflation, high prices, and uncertainties, our dollars seem to come and go at a rapid pace. On the other hand, the events of this era indicate an unprecedented search for Truth and a new awareness of the needs of our fellowman.

We are dealing in a new way with long-standing problems, such as pollution, automobile safety and public health. Increased interest in our historical societies and their efforts to preserve important landmarks indicates a renewed appreciation of our heritage and a desire to extend the value of these investments made years ago.

Perhaps it would behoove us all to take a new look at the "gift-giving" opportunities in our lives and evaluate both the material and the spiritual worth of our "investments," especially at Christmastime.

In an editorial in the *Wisconsin Medical Journal*, Dr. D. N. Goldstein, editorial director, made the following suggestion:

"The problem of what to give the man who has everything is often a vexing one. Most professional people come through the holidays loaded down with meaningless merchandise that does no one any good except those who sold it. Many people feel that the only way to pay respect, to honor or to express high regard is to transmit a material token. The resulting grotesque waste of money is one of the scandals of contemporary life."

Dr. Goldstein also suggests, "How much more significant and valuable are gifts that pay honor and result in lasting benefit to society. Such gifts truly honor the person in whose name they are made, and they speak eloquently of the high-minded purpose of the donor."

The Missouri State Medical Foundation gives you an opportunity to fulfill this suggestion. The current need for additional funds to assist deserving Missouri Medical students is surpassing contributions that are being made by the physicians and their families in this state.

Your contribution to the MSMF can be used to pay tribute to the memory of respected friends, relatives or colleagues. It provides a more meaningful way to honor the living on special occasions, such as birthdays, anniversaries and other special events. When you make a contribution of this nature, the person you honor will receive an acknowledgment without divulging the amount of the gift. The donor will receive a receipt for the contribution to assist him in claiming a tax deduction.

The dollars you give will keep on giving to medical students and the profession as long as the Foundation exists. You have the satisfaction of knowing that your investment does not end with a gift that is not needed or will be discarded.

When you think of giving . . . at any time for any reason—think of the Missouri State Medical Foundation. Your contribution will be shared by the entire community, and you will get the greatest return for your gift dollar.

Thank you, Dr. Goldstein, for pinpointing these important aspects of gift-giving.

Continuing Education Coming Events

Dec. 2-3	**Diagnosis and Treatment of Common Respiratory Diseases** Continuing Education, M. U. School of Medicine Columbia 65201
Dec. 7-8	**Gynecology and Obstetrics** Postgraduate Medical Education K. U. School of Medicine, Kansas City, Kan. 66103
Jan. 12	**Psychiatric Diagnostic Methods** Department of Neurology and Psychiatry St. Louis U. School of Medicine 63104

County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

Buchanan County Medical Society

The annual election of the Buchanan County Medical Society was held at the St. Joseph Country Club following a dinner on October 7. Officers chosen to serve in 1971 are President-Elect, Lawrence H. Pifer, M.D.; Vice-President, Elza F. Butler, M.D.; Secretary, Randal W. Weed, M.D.; and Treasurer, Robert W. Kieber, M.D. This is the 18th consecutive term for Doctor Kieber in this office.

Dr. Clement C. DuMont was elected to the Board of Censors. MSMA Delegates chosen are Dr. Richard V. Riddell and Ernest E. Wadlow. Alternates named are Drs. R. Philip Acuff, G. Tysen Carpenter and Allen I. Herman. Dr. Edmund W. Kline was selected to serve on the Committee on Public Policy.

Dr. Scott C. Benson was elected to the Board of Trustees for a five-year term. The present President, Dr. Owen W. D. Craig, was named to serve on the Executive Secretary Committee.

The newly-elected officers and Dr. Sharon E. Waggoner, who has been serving as President-Elect for the past year, will be installed at the annual meeting of the Society in December.

Elza F. Butler, M.D., *Secretary*

Clay County Medical Society

Dr. Joseph L. Fisher of St. Joseph, President of the Missouri State Medical Association, was the guest speaker at the October meeting of the Clay County Medical Society in Liberty.

Dr. Fisher explained the details of the Health Care Foundation of Missouri, the not-for-profit, corporate body that will conduct peer review in Missouri. A discussion following his presentation indicated the magnitude of the influence that peer review can exert on every physician's medical practice.

It was announced that the Clay County Medical Society and its Woman's Auxiliary will meet at the Elms Hotel in Excelsior Springs on October 27 for a joint session. The speaker will be Mr. Stuart Eurman, executive director of the Metropolitan Planning Commission, who will discuss plans for development of medical facilities north of the Missouri River.

Daniel Boone, M.D., *Secretary*

(Left) Dr. Donald E. Kuenzi, President-Elect, and (right) Dr. Richard P. Bowles, President of Clay County Medical Society, welcome Dr. Joseph L. Fisher, President of the Missouri State Medical Association, to their Society meeting in October. (Photo by Dr. James W. Willoughby.)

Grand River Medical Society

The Grand River Medical Society and its Woman's Auxiliary met at the Strand Hotel in Chillicothe on October 8 for dinner.

At the meeting which followed, Nicola Y. Katf, M.D., from the Western Missouri Mental Health Center in Kansas City, discussed "Electroencephalography." He illustrated the basic waves and demonstrated how various changes in the wave patterns can be used to confirm clinical impressions.

A business meeting and election of officers followed the lecture. Newly-elected officers are Drs. Albert Cross, Trenton, President; Joseph Conrad, Chillicothe, First Vice-President; E. W. Allen, Carrollton, Second Vice-President; F. R. Daley, Hamilton, Secretary; and Donald M. Dowell, Chillicothe, Chairman of the Program Committee.

Frank R. Daley, M.D., *Secretary*

SIXTH DISTRICT

COUNCILOR
WILLIAM D. BRADSHAW, M.D., CLINTON

Lafayette-Ray County Medical Society

The Lafayette-Ray County Medical Society meeting was held on October 13 at Maib's Cafe in Lexington. Thirteen members and guests were present. Guests included Dr. and Mrs. Manit Vajaranant.

A business meeting followed the dinner. The minutes of the previous meeting were read and approved. An application for membership was received. There being no further business, the meeting was adjourned.

Wayne Boydston, M.D., *Secretary*

NINTH DISTRICT

COUNCILOR
E. A. STRICKER, M.D., ST. JAMES

South Central Counties Medical Society

The South Central Counties Medical Society met on October 28 at the Holiday Inn in West Plains. Dr. and Mrs. A. T. Walker were hosts for the evening.

Those attending the meeting were Dr. and Mrs. Jack Langevin, Dr. David Arnold of Salem, Ark., Dr. and Mrs. A. T. Walker, Dr. and Mrs. C. W. Cooper, Dr. and Mrs. Rollin H. Smith, Dr. and Mrs. R. W. Denney, Dr. and Mrs. C. F. Smith, Dr. and Mrs. James Hasek, Dr. and Mrs. M. L. Fowler, Dr. and Mrs. W. T. Morgan and Dr. and Mrs. Jack N. Wiles.

After the dinner and a short business session, Dr. Langevin discussed "Surgical Aspects of Breast Disease."

Jack N. Wiles, M.D., *Secretary*

TENTH DISTRICT

COUNCILOR
EUGENE T. HANSBROUGH, M.D.,
POPLAR BLUFF

Mineral Area Medical Society

The Mineral Area Medical Society met in the Hoctor Building at the Farmington State Hospital on October 22. The scientific program consisted of a film on heart transplants which was provided by The Stuart Company. The film demonstrated the techniques used by Dr. Lillihei at the New York Hospital.

Following the program, the business meeting was conducted by Secretary C. W. Chastain in the absence of President Richard A. Fraser and Vice-President Edward E. Mardini. The minutes of the previous meeting were read and approved with the provision that a resolution, which had been copied by Doctor Fraser, would be added to the minutes since Dr. Fraser could not be present.

Dr. Eugene T. Hansbrough, Councilor for the Tenth District, discussed the new mechanism for peer review being instituted by the Missouri State Medical Association and the Missouri State Osteopathic Association.

Mr. Royal Cooper, MSMA Field Secretary, was then introduced. He is in charge of the office support mechanisms of the Health Care Foundation.

Dr. Kirby L. Turner reported on the work of the Legislative Committee which had been instructed at the previous meeting to prepare a resolution concerning legislative remedies regarding situations in which physicians are allowed to use a hospital without being members of the hospital staff. Doctor Turner introduced a resolution and instructed the Secretary to contact the legislators, the state attorney general's office, the Missouri State Medical Association and local newspapers, urging that legislation and rulings be obtained to allow the maintenance of staff standards in all hospitals throughout the state regardless of whether or not they are community owned. The resolution passed unanimously.

Dr. Turner then reported on the work of the Constitution and By-Laws Committee. The Constitution was read and, on motion by Dr. Charles H. Appleberry and a second by Dr. George A. Oliver, was approved unanimously. The Chair had ruled previously that in the absence of any copies of the Society's previous Constitution and By-Laws that action at this meeting would be sufficient for the approval of these documents.

The election of officers was held. Dr. Edward Mardini of Bonne Terre was nominated and unanimously elected President. Dr. Robert Dettmer was named Vice-President and Dr. C. W. Chastain was named Secretary-Treasurer. Both were nominated and elected by acclamation.

In a discussion, Dr. Hansbrough and Dr. Chastain pointed to the fact that an adjoining county did not have an organized county medical society although many of its residents obtain their medical care in Madison and St. Francois Counties. It was moved by Dr. Appleberry and seconded by Dr. Oliver that the Mineral Area Medical Society request the Council of the Missouri State Medical Association to make Bollinger County a part of the Mineral Area Medical Society. The motion was passed unanimously.

There being no further business, the meeting was adjourned.

Members present at the meeting were Drs. C. H. Appleberry, Rivermines; Paul Dennis, Flat River; Robert Dettmer, Ironton; Marvin Grossman and A. D. Newcomb, Fredericktown; and G. A. Oliver, T. R. Burcham, C. W. Chastain, G. L. Watkins, R. A. Huckstep, William Ford and Emmett F. Hoctor, Farmington; and Kirby L. Turner, Potosi.

Guests included Dr. Hansbrough, Mr. Loyal Cooper and Dr. Juan Cancelada.

C. W. Chastain, M.D., *Secretary*

New Members

James E. Allan, M.D., 2009 E. McCarty, Jefferson City, has become a member of Cole County Medical Society. Dr. Allan is a native of St. Louis, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri School of Medicine in 1967. He is in general practice.

Teresita G. Boylon, M.D., 1210 Haven Rd., Columbia, has become a member of Boone County Medical Society. Dr. Boylon is a native of Cebu City, Philippines, received her preliminary education at the University of San Carlos and her M.D. degree at the Cebu Institute of Medicine in 1964. She specializes in anesthesiology.

Albert B. Esquenazi, M.D., 966 Warder Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Esquenazi is a native of Istanbul, Turkey, received his preliminary education in Constantinople, Turkey and Havana, Cuba and his M.D. degree at the University of Havana Medical School in 1945. He specializes in psychiatry.

Robert C. Fairchild, M.D., 1710 Independence Ave., Kansas City, has become a member of Jackson County Medical Society. Dr. Fairchild is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at University of Kansas Medical School in 1950. He specializes in pediatrics.

George Kuruvilla, M.D., 701 E. 63rd, Kansas City, has become a member of Jackson County Medical Society. Dr. Kuruvilla is a native of Alleppey, India, received his preliminary education at St. Joseph College and his M.D. degree at Madras Medical College in 1960. He specializes in general surgery.

Jean M. Moroney, M.D., 751 E. 63rd, Kansas City, has become a member of Jackson County Medical Society. Dr. Moroney is a native of Mt. Kisco, N. Y., received her preliminary education at Albertus Magnus College and her M.D. degree at Woman's Medical College of Pennsylvania in 1965. She specializes in neurology.

David A. Tillema, M.D., 6306 Morningside Dr., Kansas City, has become a member of Jackson County Medical Society. Dr. Tillema is a native of Centralia, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois School of Medicine in 1962. He specializes in orthopedic surgery.

In Memoriam

Cleveland, Horace F., M.D., Long Beach, Calif., a graduate of Barnes & National University, 1914; member St. Louis Medical Society; age, 82; died Aug. 17, 1970.

Haynes, Pugh, Jr., M.D., St. Louis, a graduate of the University of Tennessee, 1929; member St. Louis Medical Society; age 68; died Oct. 14, 1970.

Emmert, Frederick V., M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1923; member St. Louis Medical Society; age, 73; died Oct. 20, 1970.

Huber, Erwin T., M.D., St. Louis, a graduate of St. Louis University, 1935; member St. Louis Medical Society; age, 59; died Oct. 23, 1970.

Weinel, Francis G., M.D., St. Louis, a graduate of University of Tennessee, 1925; member St. Louis Medical Society; age, 70; died Oct. 23, 1970.

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Council Report

(Continued from page 844)

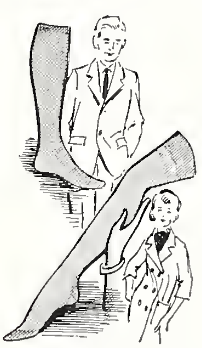
pediatric representative on the Interspecialty Commission. Dr. Lieb felt that the results of this study might indicate many things that are already known, but he did see some merit in it. It was indicated that a similar study was done some years ago which involved the "Bootheel" area.

On motion, duly seconded, the Council approved the study, "Nutritional Status of Preschool Children," subject to the future approval of the President of the North Central Counties Medical Society and requested that a report of the findings of the study be sent to MSMA along with a report of the previous study. The motion carried.

Dr. Gulick reported that the Council had charged the Interspecialty Commission with the responsibility of studying in depth the Physician Assistant Program. Members of a small subcommittee appointed to undertake this study are Drs. George Hawkins, William Stoneman and Charles Gulick. The subcommittee then divided its work into three parts: Dr. Hawkins studied existing medical assistant programs and, also, attended the AMA meeting in Chicago on Health Manpower Problems; Dr. Stoneman developed a questionnaire which was mailed to all members of MSMA; Dr. Gulick took the portion regarding medical manpower problems in the state of Missouri. Dr. Gulick reported that his portion regarding medical manpower problems could be summarized by the following:

1. Medical schools in the state of Missouri evidently cannot keep up with the need for physicians to practice medicine in outstate Missouri.
2. Missouri's needs are concentrated in the rural areas since the physician-to-population ratio in the urban areas is excellent, but the rural areas are relatively deprived of medical services.
3. Without osteopaths, outstate Missouri would have a much greater problem than it has at the present time.
4. If a medical assistant program is to be of great value to the citizens of this state, the medical assistant must be utilized to a considerable extent in the area in which medical care is not readily available.

Dr. Gulick stated figures to substantiate his summarization on the medical manpower problem. As of 1965, Missouri averaged 149 physicians per 100,000 population; the U. S. average was 145. Missouri averaged 124 M.D.'s per 100,000 population; the U. S. average was 139. Missouri has 25 D.O.'s per 100,000 population; the U. S. average is 6 D.O.'s per 100,000 population. He further indicated that the four metropolitan areas of Missouri average 167 M.D.'s per 100,000 while in rural counties there are 63 M.D.'s per 100,000. Since 1921 to the present date, the M.D. population ratio has declined 30%, but in the urban areas it has declined 23% and in the rural areas 55%.



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Dr. Gulick stated that in regard to Dr. Hawkins' questionnaire, which was sent to institutions now offering medical assistant programs, it is a rather lengthy study, but it came down to the fact that nobody has had such a program long enough to be of much help.

Dr. Gulick then called on Dr. Stoneman to give his portion of the report regarding the questionnaire sent to all M.D.'s.

The basic purpose of the questionnaire was to survey the opinions of the physicians or the members of MSMA. According to these opinions, there is a substantial need for a physician assistant. Well over 50% of responses were in favor of a physician assistant category in the state of Missouri. Responses received, which represent about 70% of the physicians surveyed, indicate a much larger market for physician assistants than could be satisfied by anything less than a crash program of training for a period of several years.

The survey indicated substantial differences in needs among the various specialties and suggested that while significant interest existed in rural areas, the bulk of the demand appears to be in metropolitan areas with greater interest found in the more highly organized types of practice than in smaller ones. Copies of the tabular information were distributed to the Council prior to the meeting.

Dr. Stoneman indicated that many of the returned questionnaires contained written comments which were broken down into "favorable" and "unfavorable." Reservations were expressed regarding the medical-legal implications of such a program.

Dr. Stoneman stated that he had received several requests for the information in this study and asked the Council's approval to release this information.

Discussion followed regarding the results of the questionnaire. It was pointed out that if a physician assistants program were set up, most of the assistants would still go to the metropolitan areas and not to the rural areas where the problem actually exists.

Dr. Gulick reported that the following motion was made, seconded and approved by the Commission:

> "Move approval of the Commission survey and report and recommend the Council move toward implementing a Physician Assistant Program and that they specifically emphasize the concept of direct supervision by the physician in contradistinction to the P. A. practicing independently; that the various disciplines of practice define and outline the needs and training requirements for the assistant for each discipline; that legislation be recommended to legally make the assistant responsible to the physician and under control of the State Board of Healing Arts."

It was pointed out that if each specialty would outline the needs and requirements of a physician assistant in each particular field, there would be some 20 different educational requirements. After further discussion, it was moved, seconded and carried that the motion of the Commission be disapproved.

On motion of Dr. Bradshaw, duly seconded, it was recommended that the Commission's work be commended and that the Commission continue to study the programs of needs and determine what further information or recommendations they can suggest at the next Council meeting. The motion carried.

On motion of Dr. Fisher, duly seconded, it was decided not to release or circulate the information regarding the physician assistants program until after a subsequent report of the Commission.

Dr. Gulick stated that during the Commission meeting, he appointed representatives from five specialty groups to attend a MRMP Cancer Planning Conference in Columbia on October 8.

On motion, duly seconded, the report of the Commission on Interspecialty Medicine was approved as amended. The motion carried.

REPORT OF AD HOC COMMITTEE ON CONTINUING MEDICAL EDUCATION

Dr. Paul Young, Chairman of the Ad Hoc Committee on Continuing Medical Education, gave the following report regarding his Committee meeting on September 20 in Jefferson City.

He reported that his Committee considered the resolution adopted by the MSMA House in 1970 regarding an Interim Scientific Meeting. He stated that his Committee felt that due to the ever increasing number of such meetings, no MSMA Interim Session should be considered at this time.

On motion of Dr. Hansbrough, duly seconded, it was decided that no Interim Scientific Session of the MSMA should presently be held. The motion carried.

Dr. Young further reported that his Ad Hoc Committee discussed the scientific sessions held during the regular MSMA Annual Session and felt that these might be reevaluated with the thought that the annual meeting might consist only of business meetings of the House of Delegates.

Dr. Young stated that Mr. Fischer, representing SAMA, explained the SAMA Summer Job Program. The Missouri Hospital Association approved the SAMA Summer Job Program for 1971 contingent upon endorsement by the MSMA. The program extends for ten weeks at $75 per week, plus room and board, if needed and available, to be paid by the hospital. Generally, the student spends one week in each hospital department under the supervision of medical staff physicians. Some time can be scheduled in clinics and physician's private offices. Emphasis is on assignment to hospitals in small communities or rural areas to provide the student with opportunity for experience outside the medical center complex. Dr. Young indicated that his Committee endorsed the program, but would limit participation to prejunior and presophomore students. The Missouri Osteopathic Association reported interest in the SAMA Program, and the program will be considered by their Board of Trustees at a meeting in November.

Subsequent to Council action, if favorable, the Committee recommended that a subcommittee be formed with a maximum of four persons representing MSMA, SAMA, Missouri Academy of General Practice and the Missouri Osteopathic Association to help implement the program.

Discussion followed regarding the size of the hospital in which this program would be carried out. It was pointed out that it would be in hospitals of 100-150 beds or less and the students might spend several weeks in one department or in the physician's office. Dr. Young stated that the medical schools indicated this would not interfere with their preceptorship programs.

On motion of Dr. Matthews, duly seconded, the Council approved the Committee's recommendations on the SAMA Program. The motion carried.

Dr. Young reported that his committee was appointed by the Council to study the Oregon Plan and other alternatives relative to continuing medical education. He stated that the Oregon Plan is compulsory and the California and Alabama Plans are voluntary. Dr. Rutledge Howard of the AMA reported at the meeting that, to date, 35 states have informed the AMA that they have continuing education programs or plan to develop one. Dr. Young indicated that his Committee discussed the two basic types of programs—compulsory and voluntary. He stated that the objective desired by a statewide program is to measure and maintain physician competence in order to improve the quality of patient care.

The Committee on Continuing Medical Education approved a motion to form a subcommittee with a maximum of five persons, including representatives from the MSMA and the Board of Healing Arts (M.D.'s and D.O.'s). The subcommittee would be charged with a decision on (1) type of program, either compulsory or voluntary; (2) the type of system for implementation; and (3) role of the MSMA in the implementation. Dr. Young stated that it was indicated in the House of Delegates resolution that a report of this Committee and the Council's recommendations on such report are to be submitted to the component county medical societies by Jan. 1, 1971 so that the House may act on it at the next Annual Session.

Dr. Young indicated that the AMA felt at this time

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that the continuing medical education program should be voluntary. He stated that in a small hospital, you might take one physician and train him; then he could go back and teach the other physicians in his hospital.

Dr. Young stated that his Committee felt that they would not go into very specific recommendations regarding the continuing medical education program, but felt that the approval of this report would give them an opportunity to have a subcommittee go into it in more detail.

After further discussion, motion was made and seconded that the Committee's proposal regarding continuing medical education be approved. The motion carried.

A motion was made, seconded and passed to approve the report of the Ad Hoc Committee on Continuing Medical Education.

STATE POLICY COORDINATING COMMITTEE FOR PEER REVIEW

Dr. Fisher reviewed the development of the statewide peer review program. The Council, in the fall of 1969, appointed an Ad Hoc Committee chaired by Dr. Rae W. Froelich of Lebanon to study the peer review mechanism within the state. At the 1970 Annual Session, the Council was directed by resolutions from the House of Delegates to promptly develop and implement a quality state peer review mechanism.

In May of this year, Dr. Froelich's committee recommended prompt establishment of a state program divided geographically into five areas superimposed upon existing councilor districts. The major objectives of this program are as follows:

1. Appropriateness of care as related to utilization and modality of treatment.
2. Cost—Are fees charged usual and customary?
3. Maintaining the quality of care at an appropriate level.
4. Provide education for both physicians and the public.

Dr. Froelich's committee realized that if peer review is to function effectively, it should include all physicians within the state and that osteopathy should be invited to participate. A joint meeting of MSMA and MAOPS officers was held. He said we are pleased that the osteopathic physicians are participating in our peer review project and the Foundation.

The function and responsibility of the State Policy Coordinating Committee would be to screen cases and forward them to the regional panels. They also would assist the regional panels in developing norms and guidelines.

Dr. Fisher stated that, with the help of Dr. Miller and Royal Cooper, the Health Care Foundation of Missouri was launched and that Dr. Miller had a series of slides which he would show and discuss.

Mr. Cooper explained that Dr. Froelich's committee, Dr. Miller and staff had spent many hours and days in serious study and debate of peer review and the foundation concept, its relationship to state and county physicians' societies and its relationship to government medical care programs. Also, extensive study of the attitudes and requirements of the Blues, of the involved governmental agencies and of the facilities which may be available to assist in the administration of this program were made.

Mr. Cooper stated that Articles of Incorporation for the

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Health Care Foundation of Missouri were filed and approved by the State of Missouri on August 31, 1970. The two incorporators of the Foundation are Dr. Fisher as President of MSMA and Dr. Claus Rohweder, Kirksville, as President of MAOPS. The first Board of Directors, 21 in number, include the 15 officers and councilors of MSMA and the six designated officers of MAOPS. He said it is logical that the two societies control the statewide foundation. However, in the future, possibly the Blues, representatives of the Health Insurance Council, state and federal government representatives, labor, management and consumers will be included in an advisory, ex officio capacity.

It is hoped that during the year guidelines or parameters will be established, based upon actual charge experience in the area and a consensus of medical judgment as to what constitutes necessary care of good quality. These guidelines should include the following:

1. Usual and customary fees for physicians' services by diagnosis.
2. Appropriateness of hospital confinement by diagnosis.
3. Length of hospital confinement by hospital diagnosis.

In the basic mechanics of the program, the Blues, carriers, fiscal intermediaries and county medical societies would submit cases based on current guidelines to the Foundation central office. The State Policy Coordinating Committee, possibly working in twos and threes, would screen all incoming cases:

1. To resolve and return to the fiscal intermediary cases involving some technicality or missing information.
2. To oversee the types of cases coming through the Foundation.
3. To train staff and implement administrative procedures.

Cases would be assembled by district; additional information, if needed, requested from the physician or carrier. Chairman of the Regional Panel would be contacted, meeting date and place established, cases prepared and mailed to all members of Committee at least ten days before the meeting to enable them to study cases before the meeting. Staff attends meetings, acts as secretary to the Committee and forwards committee recommendations to the fiscal intermediary. If a physician is dissatisfied with a decision of the Regional conglomerate committee, he may appeal it to the State Specialty Society Committee. If a case does not involve possible disciplinary action, the physician could possibly appeal for a hearing with the State Policy Coordinating Committee.

Dr. Miller explained that the effectiveness of the Peer Review mechanism depends upon total support of the medical community. Success depends upon devotion of time and effort by dedicated men throughout the spectrum of medicine and osteopathy to Peer Review panels. He said that we anticipate that physicians participating in the program will be paid on a "per diem" basis in addition to travel expense when applicable.

He said that we feel that in the broad spectrum or conglomerate panel, educational opportunities are better for both public and professionals. Through specialty backup panels, problems which could not be resolved by individual geographic review panels will be evaluated fairly on the basis of quality. We think unquestionably

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that this Peer Review mechanism will be of great help to patients throughout the state. It will be the source of improved professionalism within our own association, and it will be of great economic value to intermediaries for medical care including Blue Shield Plans in St. Louis and Kansas City, Health Insurance Council and State Division of Welfare.

Dr. Miller presented a series of slides with special comments. He stated that Peer Review has been an established mechanism for many years. Primary emphasis has been placed on length of stay as related to cost. Secondary emphasis has been placed on quality and continuing education. Missouri's program specifically stresses values of comprehensive Peer Review in delivery of medical services. Criteria are in developmental stages to achieve major objectives of (1) Review of Equality (Utilization), (2) Review of Cost, (3) Review of Quality and (4) Provision for Education.

The Peer Review mechanism will encompass medical care delivery in the following areas. Emphasis will be on medical, health-related influences as well as socioeconomic influences on patient recovery. They are (1) Physicians' Offices, (2) Neighborhood Health Centers, (3) Hospitals, (4) Extended Care Facilities and (5) Nursing Homes.

Retrospective evaluation is to be carried out as a continuing element of the program by use of patient, physician, provider and cost of illness profiles. Emphasis will be placed on "patterns of delivery" of medical care including both over- and under-utilization.

The not-for-profit Foundation approach is to be followed for implementation of the program. Health Care Foundation of Missouri is a corporation communicating with the total community for purposes of providing resources for cost for peer review, cost for physician education, cost for public education and negotiation and development of a total program for delivery of health services.

Emphasis of a statewide program in Peer Review identifying pervasive weaknesses becomes the focus for general educational effort. Responsibility for review must be effectively linked with the highest authorities in any program, so that information concerning behaviors in the system can lead to appropriate structural and procedural modifications in the programs as a whole.

Dr. Miller explained that financing of the Foundation is progressing rapidly. Both the Kansas City and St. Louis Blue Shield Plans and the State Division of Welfare will participate in financing this organization. It is anticipated that the health insurance industry will participate financially in the Foundation at a later date.

Dr. Miller stated that if medicine is to do an effective job in peer review, it also must participate in the cost. He suggested an initial, token appropriation of perhaps $5,000 from MSMA and $2,000 from MAOPS.

Discussion followed regarding staffing of the Health Care Foundation. It was decided that Mr. Cooper would be in charge at the beginning and would recruit additional help as needed.

Dr. Fisher suggested that physicians could take care of some patients in a more satisfactory manner if health insurance policies provided for treatment on an outpatient basis. He urged the Councilors to discuss this idea with their patients and health insurance agents.

Dr. Fisher moved that the Council go on record as appropriating $5,000 when needed with the provision that the evidence of this action be submitted to the Osteopathic Association. After further discussion, on motion, duly seconded, it was agreed to table Dr. Fisher's motion for the time being.

On motion, duly seconded, it was agreed to approve the interim report of the State Policy Coordinating Committee for Peer Review. The motion carried.

On motion, duly seconded, the Council approved the Health Care Foundation of Missouri. The motion carried.

The Chairman entertained a motion to untable Dr. Fisher's previous motion. It was duly seconded and carried.

After further discussion, on motion of Dr. Fisher, duly seconded, it was agreed that the Council go on record as appropriating $5,000 for the Health Care Foundation of Missouri with the provision that the evidence of this action be submitted to the Osteopathic Association.

On behalf of everyone present, the Chairman thanked the President-Elect for his wonderful hospitality the previous evening.

BUDGET COMMITTEE

The Chairman appointed the following Budget Committee for 1971: Drs. Fisher, Miller, Stricker, Cope and Gunn with Dr. Franklin as Chairman. He indicated that a meeting of this Committee will be held on Friday, Dec. 11, 1970 prior to the December 12-13 Council Meeting.

COMMITTEE ON ARRANGEMENTS

The Chairman then appointed the following physicians to the Committee on Arrangements for the 1971 Annual Session: Dr. Robert Mayer, Chairman; Hansbrough; and Gunn.

AMA DELEGATES' REPORT

Dr. Peterson reported that all the Delegates and Alternate Delegates were present at the 119th Annual Convention of the AMA held in Chicago on June 21-25, 1970 and all worked hard, including the officers and staff members attending. Dr. Neilson served as Chairman of a Reference Committee and Dr. Benoit served as a member of the committee which held a public forum for consumers. Dr. Wesley W. Hall was elected President-Elect, Dr. H. Thomas McGuire was elected Vice-President and Drs. Russell B. Roth and J. Frank Walker were reelected to their positions as Speaker and Vice-Speaker of the House respectively.

Dr. Peterson stated that none of the resolutions submitted by the Missouri Delegation were turned down, but were referred to proper places for further consideration. He further stated that there is going to be a great expansion of activities of AMA as far as public relations is concerned. He then gave a brief rundown regarding some of the actions of the AMA House, indicating that these have been published and he felt everyone was aware of them.

On motion of Dr. McAlhany, duly seconded, the AMA Delegates' Report was approved. The motion carried.

ATHLETIC INJURIES

Dr. Miller introduced Dr. Donald M. Spencer, an orthopedic surgeon from Kansas City, who discussed the matter of prevention and treatment of athletic injuries.

Dr. Spencer indicated that he has noted in his practice and association with coaches at high schools, colleges and little league levels that there is a definite need for more medical involvement in athletic programs, not necessarily in the treatment of injuries, but in the prevention of them. He further indicated that there are many products on the market aimed at athletes and athletic programs and most coaches are at a loss as to what is necessary for a safe athletic program. He stated that he felt it would be good for the medical community and the community as a whole if the physicians could develop a committee that would establish such guidelines and standards. Dr. Spencer indicated that there are no standards on when an injured athlete should return to play after an injury; what the medical kit on the sideline should contain; do we have a drug problem among athletes; etc. He concluded by stating that this is a service physicians could offer our communities and one which is definitely needed.

Dr. Cope indicated that he felt any standards to be established should include all children involved in physical education and not only those in competitive sports.

Dr. Spencer said that there is some literature available on athletic injuries, but most of it is aimed at treatment of these injuries.

Dr. Gunn stated that the AMA has several pamphlets on various phases of such programs.

After further discussion, Dr. Gunn referred Dr. Spencer's report to the Commission on Public Affairs with the recommendation that an Ad Hoc Committee be formed with Dr. Spencer as a member for further report back to the Council.

UNIVERSITY OF MISSOURI MEDICAL CENTER

Dr. William Mayer reported on the fiscal problem of the University of Missouri Medical Center at Columbia and some proposed solutions to the problem. He stated that, at the present time, there is a deficiency in the budget of approximately $670,000 which is totally out of the hospital portion of the budget. He indicated that only 20% of their patients are total pay patients. All patients are on a referral basis with the exception of some in OB, continuing care in pediatrics and family practice. Dr. Mayer mentioned several possible solutions to this fiscal problem:

1. Approach the physicians of the state, asking them to send more of their paying patients and not only those unable to pay.
2. Take the patients who are referred and make the decision to accept them on the basis of their ability to pay.
3. To change from a referral basis only, by accepting patients directly without referral.

Dr. Mayer stated that the largest percentage of patients who are part-pay patients are not covered under Medicare or Medicaid, but are medically indigent. He said that the concept seems to be that the University Hospital constitutes the indigent care hospital of the state.

Much discussion followed regarding this problem and possible solutions to it. It was stated that possibly doing away with the referral system might only bring in more indigent patients.

Dr. Mayer stated that if the University Hospital would accept only those patients who could pay, he felt that their patient care would go down below the level necessary for a teaching hospital. The possibility of a supplemental appropriations bill was suggested. It was suggested that if they went to only full pay patients, it might become difficult to go back to the Legislature for appropriations. Dr. Matthews suggested that they might go to full pay or nearly full pay patients on a temporary basis to get the hospital over the crises.

It was stated that the quality of teaching patient care might drop if the third solution were put into effect.

Inquiry was made as to whether the financial problem could be solved if 30% of the hospital's patients were full pay. Dr. Cope indicated that possibly Boone County physicians having clinical appointments to the University might, on a temporary basis, send some of their private patients to the University Hospital in order to obtain the 30% full pay patient load.

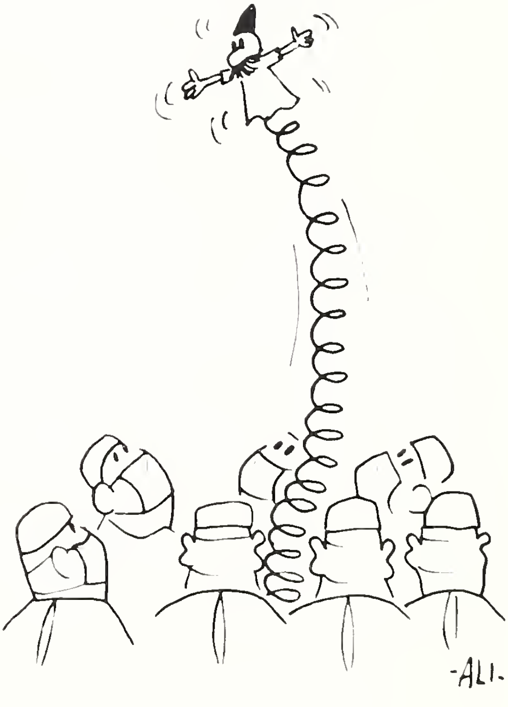
Dr. Mayer then reiterated briefly the Medical Center's relationship with the Division of Welfare and the Medicaid Program, particularly as it relates to payment of supervisory physicians. He indicated that according to the Division of Welfare, any service claimed must have been personally provided by the physician signing the claim form. There is no provision for payment of supervisory physicians. He stated that most other states pay for services which are rendered under direct, personal supervision. Dr. Mayer reported that he is still meeting and corresponding with Mr. Carter to try to resolve this problem.

After further discussion, the Chairman indicated that he felt Dr. Mayer had received the thinking of the Council regarding his problems and on motion of Dr. Bradshaw, duly seconded, Dr. Mayer's report was accepted. The motion carried.

REPORT OF COMMITTEE ON MEDICAL ECONOMICS, THIRD PARTY MEDICINE AND GOVERNMENTAL RELATIONS

Dr. Herbert Wiegand, Chairman of the Commission on Medical Economics, Third Party Medicine and Governmental Relations, gave the following report regarding the meeting of the Commission held on July 19, 1970 in Jefferson City:

Dr. Wiegand stated that his Commission discussed the resolutions adopted by the MSMA House of Delegates concerning "Improper Decisions Against Part A Medi-



care Patients by St. Louis Blue Cross," "Utilization Review Committees" and "Extended Care Claim Rejections." It was noted that a medical director has been appointed by St. Louis Blue Cross to review claims. The Commission felt that the problems outlined were with all fiscal intermediaries handling Part A of the Medicare Law.

The following Ad Hoc Committee was appointed to meet with the carriers and report back to the Commission: Louis P. Hetlage, M.D., Troy, Chairman; Virgil Loeb, Jr., M.D., St. Louis; Victor B. Buhler M.D., Kansas City; Stanley S. Peterson, M.D., Springfield; and Joseph S. Cope, M.D., Lexington.

Dr. Wiegand reported that the resolution concerning "HEW's Nullification of Utilization Review Committees" was discussed and it was reported that this resolution was presented to the AMA House of Delegates in June and no further action was needed.

Dr. Wiegand indicated that Dr. Peterson discussed the intent of the resolution adopted concerning "Negotiation of Professional Fees." The Commission recommended that the Chairman of the MSMA Council pursue and implement the, "Resolved, that the MSMA be directed to set up the mechanism for negotiation of not only professional fees, but also the rules, regulations and procedures that establish the conditions under which the physicians render their services," as soon as possible. It was also reported that this resolution was introduced into the AMA House of Delegates and was referred to the Board of Trustees.

Dr. Wiegand reported that discussion was held regarding three related resolutions concerning the sponsorship of Missouri Medical Service (St. Louis Blue Shield) and the two Missouri Shield groups were discussed generally. An Ad Hoc Committee was appointed by the Chairman of the Commission to consider the relative merits and problems inherent in the two Blue Shield plans. Another resolution "that the practicing physicians of Missouri through MSMA direct its sponsored organization, Missouri Medical Services, Inc. to provide total health care insurance" was also included for study by this Ad Hoc Committee. Dr. Maple of Springfield was appointed Chairman of this Ad Hoc Committee. Committee members are: Drs. W. J. Ferguson, Sikeston; Roy Pearse, Nevada; Blaine Hibbard, Kansas City; James Haddock, St. Louis; and E. E. Wadlow, St. Joseph. Dr. Wiegand stated that this Ad Hoc Committee met on September 30 and would report to the Commission.

Dr. Wiegand stated that his Commission recommended that a letter from the President of the St. Louis Medical Society requesting that specialty groups survey members and update fee schedules be returned to the MSMA Council with the recommendation that it be referred to the Commission on Interspecialty Medicine.

Dr. Fisher indicated that, in his travels over the state, he has had inquiries from young physicians regarding fee schedules.

On motion, duly seconded, it was agreed that the updating of fee schedules be referred to the Commission on Interspecialty Medicine.

Dr. Wiegand reported that at the Commission meeting, Dr. Froelich explained the work of his committee regarding a peer review mechanism for Missouri physicians and the possibility of chartering a foundation to implement the program. He stated that Dr. Froelich also discussed the possibility of establishing a pilot program for a rural Missouri county foundation that would deliver prepaid medical care for Medicaid patients under a contract with the Division of Welfare. The Commission also discussed recent physicians fee cuts and limitations imposed under the Medicaid Program.

The motion was made, seconded and carried that the report of the Commission on Medical Economics, Third Party Medicine and Governmental Relations be approved.

HEALTH CARE FOUNDATION

Dr. Miller indicated that he felt the Council should take some action regarding the Foundation and its membership, indicating that many things need to be done and funds cannot be spent until the organizational structure is completed. He stated that he felt it absolutely essential that this Foundation and peer review concept be sold to all physicians and that the majority be cooperating members.

On motion of Dr. Miller, duly seconded, it was resolved that members of the Missouri State Medical Association should be active, participating members of the Health Care Foundation of Missouri. The motion carried.

Dr. Miller stated that similar action will be taken by the Osteopathic Association. He further stated that the proposed Constitution and Bylaws of the Health Care Foundation will be circularized to the Board of Directors.

Dr. Gunn reported that a meeting of the Board of Directors of the Health Care Foundation will be called for the purposes of electing officers and adopting Bylaws. It was suggested that an evening meeting be held in Columbia as soon as possible.

The Chairman indicated to the Deans of the Medical Schools that at future Council Meetings there will be an agenda item entitled "Deans' Report," which will give them an opportunity to bring matters of significant importance to the attention of the MSMA Council.

AMA CLINICAL SESSION

Dr. Peterson reminded the Council to send any resolutions which they would like to be submitted to the AMA at the Clinical Session to be held in Boston, November 29-December 2.

NEXT MEETING

The next Council Meeting will be held on December 12-13, 1970 at the Ramada Inn in Jefferson City, with a meeting of the Budget Committee to be held at 4 PM on December 11.

The meeting adjourned at 12:15 PM.

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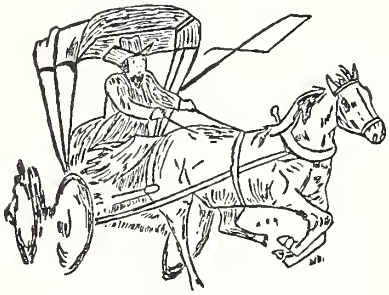

FORTY YEARS AGO

St. Louis was the center of interest for the pharmaceutical world on October 31-November 1 as the scene of an international celebration of the 300th anniversary of the first recognized cinchona. The Quinine Tercentenary, held under the auspices of the Missouri Botanical (Shaw's) Garden, was attended by approximately 300 eminent men from all parts of this country.

Dr. John Sappington and his "anti-fever pills," probably a patent medicine, was of prime importance in controlling malaria in the Mississippi Valley. Fever was a deadlier enemy of the pioneer than famine or Indians. Cinchona was known, but distrusted. The fever, decimating parties of settlers before they reached the banks of the river, was treated in the orthodox manner with purges, emetics and bleeding. It was due to this man's life work that pioneers could make their homes in the West without fear or fever.

Dr. R. Lee Hoffmann, Kansas City, was elected president of the southwestern branch of the American Urological Association at its meeting in Lincoln, Neb. on October 31. Kansas City was selected as the next place of meeting.

Dr. Karl Landsteiner, New York bacteriologist and pathologist, was awarded the Nobel Prize for Medicine for his discoveries and research in classifying different types of human blood. He is the discoverer of the group characteristics of red corpuscles. Other discoveries by Dr. Landsteiner relate to paroxysmal hemoglobinuria and to the specific properties of blood serum.

TWENTY-FIVE YEARS AGO

Pentothal sodium (thiopentobarbital), an ultra-short-acting barbiturate, was introduced clinically by John S. Lundy in 1934. It is from 30% to 50% more potent than evipal, less toxic and produces more satisfactory anesthesia. It is detoxified rapidly in the liver.

Dr. James H. Danglade, Kansas City, Chief of the Medical Service in the U. S. Naval Hospital in Norman, Okla., has been promoted to Commander.—Dr. Robert Elman, St. Louis, has received the Samuel D. Gross Award of the Philadelphia Academy of Surgery for his work in the use of amino acids.

The annual pilgrimage to the grave of William Beaumont in Bellefontaine Cemetery, St. Louis, was made on November 22.

Col. James Barrett Brown, St. Louis, has been assigned to the Office of the Surgeon General, Washington, as senior consultant in plastic surgery.—Lt. Col. Roy V. Boedeker, St. Louis, recently was awarded the Bronze Star for meritorious achievement in connection with military operations in the Mediterranean theater from Oct. 25, 1943 to March 11, 1945.

TEN YEARS AGO

Luke A. Knese, M.D., St. Louis, Democrat, won reelection to the Missouri House of Representatives from the Fourth St. Louis District. Jesse J. Wimp, M.D., Kirksville, Democrat, won reelection to the Missouri House of Representatives from Adair County.

The medical staff of the Sweet Springs Community Hospital elected Dr. Charles A. Worley, Sweet Springs, president and Dr. Hugh S. Brady, Concordia, vice-president.

Among Fellows of the American College of Surgeons inducted at its recent meeting in San Francisco were Drs. Carl H. Calman, Clayton; John W. Payne, Columbia; Fred O. Tietjen, Jefferson City; Robert S. Brown, Samuel Kantor, William A. Leo, William B. McCunniff, Milton B. Ozar, Marion W. Richardson and Christopher Y. Thomas, Jr., Kansas City; L. Marvin Roberts, North Kansas City; Eugene T. Hansbrough, Poplar Bluff; Drennan Baily, Melvin A. Cassell, Caldwell J. Gaffney, James Y. Griggs, Irwin B. Horwitz, F. Patrick Lamb, Milton I. Lenobel, William T. Newton, Frank A. Palazzo, Kenneth D. Serkes, Arthur H. Stein, Jr. and Robert E. Thomasson, St. Louis.

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